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THE FOURTH INTERNATIONAL CONGRESS ON TECHNICAL EDUCATION.

The recent International Congress on Technical Education, held in London under the auspices of the Society of Arts, apparently failed to attract popular attention to the extent which might have been expected from the success attained by the three previous congresses, held in France. The dates fixed for the meetings, *viz*:—June 15th to 18th, were unfortunate; for the proceedings of the International Congress were completely swamped by the festivities of the Diamond Jubilee. Whether the congress would have fared better at any other time is a debatable question, for, though the subject of Technical Education appears to be of perennial interest in England, the majority of the fifty-seven papers, read or taken as read at the sittings of the congress, consisted, to quote the words of the leading London educational journal, of "not educational rubbish, but miscellaneous educational opinion, chiefly technical." That the members of the congress themselves shared in this opinion may be gathered from the fact that the two sections, into which

the congress was divided, disposed of all the business before them in less than fourteen hours.

That the doings of the congress excited very little interest in India is apparent from the fact that the leading Indian journals practically ignored them. Nor is this surprising, for the "miscellaneous educational opinion," which was aired at the sittings of the congress, was of little or no value to this country. The papers, read or taken as read, may be divided as follows:—1*st*, historical and descriptive, such as reviews of technical education in Wurtemburg, France, Belgium, Nova Scotia, Canada, and to a certain extent India; 2*nd*, technical education in its relation to particular industries and employments—agriculture, glass-making, etc.; 3*rd*, educational principles and pedagogic theories, such as "Heuristic Instruction in Physical Science," "The Teaching of Chemistry," "Reforms in the Organisation of Technical Education," etc.

One has only to read the paper contributed by Mr. J. A. Baines to understand why India was not in touch with the congress. Of course the information supplied by Mr. Baines was well known here, but it was probably news to the majority of the members of the congress. He pointed out that seventy per cent. of the population in India look to the cultivation of the land for their livelihood, that ninety-four per cent. of the population are illiterate, that only five per cent. of the people live in aggregates of 20,000 and over, and that the general rule is the self-supporting village, where work is accomplished by rule of thumb. No doubt the papers presented to the Congress, which fall under the first and second of the three divisions, given above, were in themselves instructive, but very little can be learnt as regards India from the success or non-success of schemes tried under conditions very different to what obtain here. When technical education in this country was in its infancy it was of course natural for the ruling authorities to turn to the older countries for guidance and to try and adapt the educational procedure of those countries to India. But local experience—in many cases, bitter—has been obtained and we have only to look at the annual reports of the various Indian Educational Departments for a verification of this statement. India has arrived at a stage in Technical Education when she can look for guidance to her own experience.

The third class of papers, namely, those dealing with educational principles and pedagogic theories, is where one would naturally expect to find new ideas put forward, which could be universally accepted, and which would therefore commend themselves to those entrusted with the spread of Technical Education in India. But this is exactly what we do not find. Some of the "new" ideas, seriously put forward at the congress, are very old and a verdict has already been arrived at as to their acceptability or otherwise in this country. Others are *bonâ fide* new ideas. On the question whether or not such ideas could be put into practice in Europe and America it is difficult to form an opinion, but on a similar question as regards India it needs a person with but very little practical experience of Technical Education to arrive at a conclusion in the negative. No doubt Technical Education, as it now exists in India, exhibits a great many defects, but the Fourth International Congress on Technical Education will not help to remedy them.

PUBLIC INSTRUCTION IN CEYLON DURING 1896.

We have to thank Mr. J. B. Cull, Director of Public Instruction, Ceylon, for his courtesy in placing at our disposal the report of the Department of Public Instruction of that colony for the calendar year, 1896.

It needs only a cursory glance at the report to be convinced of the great progress which education has made in Ceylon. A comparison of the figures appertaining to education in Ceylon with those of the nearest Indian province exhibits the "Spicy isle" in a very favourable light.

	Ceylon. (31*st December* 1896.)	*Madras Presidency.* (31*st March* 1896.)
Area in square miles ...	25,365	141,350
Population	3,007,789	35,641,828
Number of pupils ...	176,658	791,634
Proportion of pupils to total population	1 to 17	1 to 45
Increase in pupils during the year	5,824	27,280
Government contribution towards education	Rs. 6,31,598	Rs. 20,10,772

The report gives the figures for schools and scholars from 1870 onwards and the rapid extension of education in the island during the past quarter of a century can be gauged from the following statement :—

	1870.		1896.	
	Schools.	*Scholars.*	*Schools.*	*Scholars.*
Government Schools ...	156	8,726	474	44,538
Grant-in-aid Schools ...	229	8,201	1,130	94,400
Unaided Schools ...	279	6,838	2,268	36,720

The figures given in the report for Government and Grant-in-aid Schools show that a large proportion of the pupils at English Schools and at Vernacular Schools consists of girls, while the reverse is the case at English Primary and Middle Schools. Of the total number studying at all three kinds of schools about a quarter consists of girls. In the Madras Presidency girls make up about one-seventh of the total number of scholars.

The table exhibiting the distribution of schools and scholars shows that different Provinces vary greatly as to their educational progress. The "order of merit" is as follows :—

Province.	*Proportion of persons under instruction to population.*
1. Western Province	1 in 11
2. Northern Province	1 in 12
3. Southern Province	1 in 16
4. Eastern Province	1 in 17
5. { Central Province / North-West Province }	1 in 25
6. Province of Sabaragamuva	1 in 33
7. North-Central Province	1 in 38
8. Province of Uva	1 in 52

The variations in proportion given are no doubt great ; but they are not so marked as in the Madras Presidency, where the proportions vary from 1 in 11 (Madras) to 1 in 89 (Vizagapatam).

The return giving the numbers presented for examination by the Government and Grant-in-aid Schools for the eight standards is a really formidable one and tends to show that examinations are held in the same esteem in the colony as they are in India. In 1895, 71,385 candidates were presented for examination and in 1896, 71,545. In Standards I, V, VI and VIII the numbers of candidates remained stationary or slightly increased ; in Standards II, IV and VII the numbers showed a marked increase ; while in Stand-

ard III there was a large decrease. Those, who have had practical experience of examinations, know that inferences drawn from such a return are liable to be erroneous. We therefore refrain from comment.

In para. 16 of the report, which is devoted to Grant-in-aid Training Schools, we read that "a fair number of student teachers are trained in these Grant-in-aid institutions, the period of training being a course of two years." In the return, accompanying the para. 14 such institutions are mentioned. Between them they had 14 scholars, who passed their first year's examination, and 18 scholars, who had passed their second year's examination. This gives an average of two scholars and a bit for each institution! It should be mentioned that, after successfully completing a two years' course, a "second-class certificate" is awarded to the pupils. After five years successful service a "first class certificate" is awarded, which carries with it a result payment from Government in addition to the salaries paid to the holders of such certificates by managers of schools.

"Superior instruction" naturally has a chapter to itself. The results of the Cambridge Local Examinations are tabulated. The following are the results: Senior boys—54 entered from 12 institutions, 1 passed with honors and 15 passed. Junior boys—182 entered from 24 institutions, 20 passed with honors and 96 passed. The Royal College in both cases obtained the largest percentage of passes. The Mathematical Prize of Rs. 100 awarded on the results of the Senior Cambridge Local Examination was won by a candidate from St. Thomas' College. The following para. will be read with interest in the light of the recent announcement about the London University Examinations, which up till now have been held in India, Ceylon and elsewhere:—"For the Matriculation Examination held in January 1896 one candidate presented himself and passed. For the June examination no candidates presented themselves."

The Technical College is said to have passed its period of probation and to have proved a success. "The new syllabus of instruction, already advertised, and *the prospect of employments in the various Departments of Government,* hold out promise of a bright future to the College and a prospect of material advantage to the colony." The italics are ours.

The Pali Vidyodara College, which receives a fixed grant of Rs. 1,000 per annum, showed satisfactory progress in the teaching of Pali, Sanskrit, and Elu, but Arithmetic seems to be at a discount at that institution. The opening of St. Joseph's College (Roman Catholic), is referred to; the satisfactory spread of female education is commented on, and the failure of Muhammadan Girls' schools noticed.

In the chapter devoted to "Primary and Middle instruction" we see that the number of Government Primary and Middle Schools decreased from 474 to 471, but the number of scholars rose from 43,838 to 44,184. The number of Grant-in-aid Schools increased from 1,096 to 1,130, and the number of scholars from 90,229 to 94,490.

The School of Agriculture and Class of Forestry have a chapter to themselves. The school appears to be in a transition stage but the dairy farm in connection with the school seems to be carried on with considerable pecuniary success.

Industrial schools appear to receive a good deal of attention, though the Director is in some doubt as to what industries should be recognised for the purposes of grant. And, no wonder; for claims have been submitted for industries under the headings "Appu's (butler's) work" and "Ayah's work."

The gross cost of the Department was Rs. 6,68,274 and the net cost Rs. 6,31,598.

We shall conclude this too brief notice of an extremely interesting report by stating the net cost to Government of educating a pupil in different institutions.

NET COST TO GOVERNMENT OF A PUPIL.

	Rs.	C.
Government Schools.		
Boys.		
English, High	33	70
Technical College	1,167	13
Agricultural, Training and Forest Schools	434	46
English, Primary and Middle	6	28
Vernacular	3	90
Girls.		
Vernacular	3	72
Grant-in-aid Schools.		
English, High	5	8
English, Middle and Primary	3	90
Anglo-Vernacular	16	10
Vernacular	2	89

PRESIDENCY COLLEGE, MADRAS.

The review of the annual report of the Presidency College, Madras, for the year 1896-97 is of more than ordinary interest, as, owing to the preparation of the quinquennial report of the Madras Educational Department, the Acting Director of Public Instruction [illegible]le to quote figures for the preceding five years.

[illegible]e strength of the several classes on the 31st March of each yea[illegible] the quinquennium is shown below :—

	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.
Junior F.A. Class	30	34	40	57	50
Senior do.	84	69	49	62	87
Junior B.A. Class	138	138	115	100	80
Senior do.	165	186	223	192	168
M.A. Students	10	9	7	12	10
	427	427	434	423	395.

The Acting Director's remark on the above table is:—" There are two features which call for comment, *viz* :—the absence of any signs of expansion during the quinquennium in respect to the total number on the rolls, and, secondly, the fall in the strength of the college in the year under report." The latter phenomenon is attributed by the Principal to a certain extent to the existence of famine or scarcity in several districts ; but this does not receive support from the table giving the districts from which the students come, for there is no indication of a material fall in the number of students coming from districts in which distress is most prevalent. The decrease is chiefly in the B. A. classes; in the senior B. A. class owing in a great measure to the good results at the previous B. A. examination, which necessitated only very few failed candidates rejoining the college; and in the junior B. A. class owing to the comparatively large number of failures at the preceding F. A. examination.

Of the nine science branches, in which students are prepared for the B. A. examination, Moral and Mental Science had the greatest number of devotees, *viz* :—51 ; Mathematics, Physics, History, and Zoology followed with 40, 39, 34, and 21 respectively ; Chemistry and Geology boasted of only 17 and 10 respectively;

while Botany and Animal Physiology brought up the rear with 2 and 1 respectively. It will be noticed that the three subjects, in which there is no practical work, were chosen by 125 students; while the five subjects, in which practical work constitutes a portion of the course, were favoured by only 90 students. Among the second languages Sanskrit was the favourite with Tamil a good second.

As regards the classification of the students, the number of Brahmans remained stationary (273); there was a decrease among all other communities. The "richer classes" contributed 55 students, the "middle classes" 314, and the "poorer classes" 26.

On coming to the paragraph—according to Indian ideas, the most important in the report—comparing the college percentages of passes with the University ones, it is pleasing to find that the former figures show a marked superiority over the latter. We refer our readers to the article on the Annual Report of the Madras University, which appears in another portion of this journal.

The gross expenditure amounted to Rs. 1,22,904 and the receipts to Rs. 33,811. The net expenditure was consequently Rs. 89,093. Considering that the institution is fully staffed to teach nine science branches up the B. A. standard, the net cost of the college cannot be described as excessive.

The cost to Government of educating each student during the past quinquennium is as folllows :—

1892-93	Rs. 262
1893-94	„ 200
1894-95	„ 209
1895-96	„ 211
1896-97	„ 216

Mr. Stuart, by whom the report is written, had charge of the institution only for the last two months of the official year, having relieved Mr. Stone, the acting Principal, on the 1st February last. Both these gentlemen must feel gratified at the Acting Director's pronouncement that "the year was, on the whole, one of sustained activity and fair progress."

DEPARTMENTAL STORIES.

By "Riverside Dweller."

Fronti nulla fides.

There is perhaps no phenomenon in nature more inexplicable than the resemblance of twins to each other—a resemblance, which persists through life in spite of vast differences in mental attainments and moral endowments, and in face of a wide divergence in occupation and position. Thus it happened with the brothers Gubbins, Jeremiah and John. About fifty-five years ago their devoted mother presented her disgusted spouse with a couple of boys, subsequently christened Jeremiah and John, and it was only by means of a string tied round Jeremiah's arm that he could be distinguished from his brother John. In later years when the brothers went to the same school, Jeremiah underwent frequent chastisements for delinquencies on the part of John. At the age of twenty-two their most intimate friends could not tell one from the other; but how great in reality was the difference between them! Jeremiah was clever and studious; he had obtained high honours at Oxbridge and had, after a severe examination, won an appointment in the Circumlocution Department, which, as our readers are well aware, offers to aspiring youth excellent opportunities and a good salary. John, on the contrary, combined hopeless stupidity with extreme indolence; after a residence of a few weeks at Oxbridge, the authorities, ruling over that ancient University, "sent him down." It thus happened that, when Mr. Jeremiah Gubbins was entering the Circumlocution Department in high hopes of a brilliant career before him, Mr. John Gubbins was "entertained," through the influence of his father's Indian friends, in the Bottle and Jug Department on Rs. 100 a month. It is unnecessary to trace the histories of the two brothers during the next twenty-five years. Mr. Jeremiah Gubbins, by the force of his ability and by the rules of his service, rose rapidly and at the age of forty-seven was Director of the Circumlocution Department, of which post he had performed the responsible duties and had drawn the large salary for the previous two years. He had made a reputa-

tion as a "strong man." That is, he was the terror (on paper) of those serving under him and he was constantly fighting Government. Mr. John Gubbins' career during the same period was of the variegated description, so common in the lower grades of the Bottle and Jug Department. He rose to some extent by seniority and influence, but many a time did he taste the bitters of Irish promotion. Consequently, at the age of forty-seven, when his brother was drawing Rs. 3,000 a month, Mr. John Gubbins was in receipt of a modest Rs. 250. The resemblance between the brothers was as marked as ever and was at times inconvenient. For instance, Mr. John Gubbins would occasionally be treated with unaccustomed reverence by some native official in the Circumlocution Department, while every now and then the Police guard at the town, he was visiting on duty, would turn out and present arms to him. On the other hand Mr. Jeremiah Gubbins would be standing in some public place wrapped up in all the dignity of a head of a department, when he would receive a slap on the back from some rollicking Bottle and Jug subordinate.

At the period, just referred to, both brothers were enjoying a spell of privilege leave at a certain hill station. Mr. Jeremiah Gubbins had rented a swell house, where he and Mrs. Gubbins (for the Director of the Circumlocution Department had taken unto himself a wife about a dozen years previously) lived with their four children in a style suited to the head of a department. Mr. John Gubbins lived in a second-rate boarding establishment. It was not often that the brothers met, for both Jeremiah and his wife objected to John, while the last-named was conscious that his brother looked down upon him and was in the habit of holding him up to the little Gubbinses as the "awful example."

On one of the rare occasions, on which the brothers walked out together, the heat was oppressive; both of them sat down on the brink of a clear pool, which, being constantly filled by a gurgling stream, emptied itself over the rocks below in the form of a miniature water-fall. The Bottle and Jug wallah proposed a swim. The Head of the Circumlocution Department protested at first, but everyone has moments of weakness, and for once in the way he unbent. The brothers divested themselves of the greater portion of their wearing apparel and entered the cool water. While swim-

…ng about, Jeremiah ventured close to the exit of the pool. In a …nent he was caught by the current and carried over the water- … His head collided with a rock and all that remained was the … body of the Director.

…eedless to say, Mr. John Gubbins was shocked beyond …ure, for he felt that he to a great extent was responsible for …isaster. Then a brilliant idea struck him. Why should he … put on his brother's clothes and come back to the world as Director of the Circumlocution Department? What possible difference could it make to the dead man whether he was buried as Jeremiah or John? Again, would he not be doing a good action in saving Mrs. Jeremiah Gubbins from a widow's fate and her children from the orphan's difficulties? In a moment his mind was made up. He would renounce for ever the name of John and would for the remainder of his existence be Jeremiah.

The new Jeremiah accordingly donned his brother's clothes and made his way to the swell house, already mentioned. As he approached he caught sight of the matured form of Mrs. Gubbins seated in the verandah, with the four little Gubbinses playing about around her.

"By George," he said to himself, "I shall now have to be the husband of that fourteen-stone female and the father of those four dreadful little prigs."

His courage failed him. He was about to turn and fly back to the pool, where he would put on his own clothes and then return as himself, when Mrs. Gubbins saw him and called out to him. His fate was now sealed and there was no getting out of the position.

"Good Heavens!" exclaimed Mrs. Gubbins. "What is the matter, Jeremiah? You seem scared. Tell me at once or I shall scream."

"We were swimming in a pool," replied the new Jeremiah, much affected, "when poor Jeremiah——I mean John—was carried over the water-fall and killed. I have left his body there. Poor Jer——I mean, John."

"Well!" retorted the severe matron, "you need not look so cut up. You yourself often said that the world would be better if John departed from it. Now that he is gone, you are so down in the mouth, that you enter your own house as if it did not belong to you."

"Maria," exclaimed the gentleman, whom we must in future

designate as Mr. Gubbins—this was the first time he had called her by her Christian name—"whatever may be said against him, Jerem— I mean, John—was my twin brother, and I am deuced sorry gone."

"Fiddlesticks," replied Mrs. G., "you know you thoroughly ashamed of him."

"Yes, yes," joined in the four little Gubbinses; "Uncle was a very bad man. You often told us so, pa dear."

"Indeed," remarked the indignant father, "let me never hear you children speak of your deceased uncle in that manner again. If I do, you will be smacked all round."

"Jeremiah!" retorted the incensed mother, "I should like to see you smack my children. That's all."

"I must now go and prepare for Jeremiah's—I mean, John's funeral," said Mr. Gubbins—he was becoming uncomfortable and wished to get away. He had already had enough of being his brother and wanted to revert to his former self, but could see no way of now doing so. He, therefore, after a short mental struggle, came to the final determination of going on with the business to the bitter end.

The corpse at the pool was carried back to the second-rate boarding establishment, an inquest was held, and the funeral completed.

"Well," soliloquised the Head of the Bottle and Jug Department when he read the report of the accident, "John Gubbins was a bad hat and the Department will be all the better without him. I suppose I must issue an official Memorandum commenting on the loss the Department has suffered owing to his death."

* * *

A few days after the funeral, Mr. Gubbins' privilege leave came to an end and he, accompanied by his wife and four children, went down to the plains and resumed control of the Circumlocution Department. We give an extract from the conversation which took place between the Office Manager and the Head Clerk of Mr. Gubbins' office about a month after his return to duty.

Manager.—"I don't know what has come over the Director. He, who used to draft every letter and carefully read every line which came into the office, now trusts me to do everything."

Head Clerk.—" He is unnerved by the terrible accident to his brother."

Manager.—" Formerly when Government ordered anything, of which he did not thoroughly approve, he would write back a stinging letter; now, he simply says we must strictly follow orders. Recently three orders came, upsetting his previous decisions in some important matters. I thought he would fight Government, but this morning he told me he would accept the Government's rulings as final."

Head Clerk.—" For two years he made promotions by merit. Now he says all promotion must go by seniority."

Manager.—" Yes. It is like having a new Director. He is so peaceful towards Government and so kind to those under him."

Head Clerk.—" In former days he would have dismissed Mr.——for what he has done."

Manager.—" Yes. But this morning when the papers went before him he simply said that a Proceedings must be issued asking Mr.——to be good enough not to do the same thing again."

Head Clerk.—" This used to be the hardest department to serve in. Since the Director's return from privilege leave, it has become the easiest."

Manager.—" There is no fighting with Government, no punishing of subordinates. However, *we* shall have more power. I wonder whether he will ever recover from the shock!"

* * *

We also give an extract from a letter, written by Mrs. Gubbins to her mother in Europe dated about two months after her return from the hill station:—

" Jeremiah is still suffering from the effects of shock, though why he should be so unnerved by the loss of his vagabond brother passes my comprehension. His whole nature seems changed. Before the accident, he was a terribly hard worker; he used to work for two hours before breakfast and went to office punctually at 10-30 and never left it till 6 P.M. Now he does no work before breakfast and his office hours are 11-30 A.M. to 4 P.M. I must confess that I am not altogether sorry, for the hard work in former days used to make him dreadfully peevish, whereas now he is exceedingly good tempered. What I can't understand is the great

alteration which his tastes have undergone. For twelve years he never smoked and stuck to claret. Now he smokes a dozen cigars a day, and does not touch claret—he drinks about a bottle of whisky in twenty-four hours. When I remonstrate with him he says his nerves require steadying after the terrible shock he experienced two months ago. Possibly the most curious effect of the shock, he is suffering from, is that he wont associate with his former friends, all of whom are high up in the service. He says that in the present state of his nerves he can't stand their beastly snobbishness. He has gathered around him all his late brother's friends and a very jolly lot I find them—much better company than the old bores with whom I have hob-nobbed for the last twelve years. None of his present friends have more than Rs. 300 a month. They are all under obligations to various Sowcars, but this fact does not seem to oppress them much. The only objection, I have to them, is that they consume a great deal of my whisky. Just fancy, they got up a billiard handicap to be played on Sundays in a not altogether first-rate hotel and Jeremiah, who started from scratch, won with the greatest ease. I know for certain that he never touched a cue since our marriage twelve years ago. It now turns out that he is a splendid billiard player. I assure you that John Gubbins has not died in vain. I and the children much prefer Jeremiah as he is now to Jeremiah as he was two months ago. I sincerely hope he will not recover from the shock."

* * *

For eight years Mr. Gubbins carried on the duties of Director of the Circumlocution Department, and we now see him at the age of fifty-five on the eve of retirement after a total service of thirty-three years, during the last ten of which he was Head of his Department, two of these years being prior to the privilege leave, already referred to, and eight of them subsequent to it.

On the day he handed over charge of his office to his successor, the leading journal, which was known to be inspired by Government, came out with an article, reviewing Mr. Gubbins' successful administration of the Circumlocution Department. We append an extract therefrom :—

"For the first two years of his occupancy of the important post of Director of the Circumlocution Department, Mr. Gubbins exhibited an unbecoming attidude towards Government and it

seemed that he would not realise the high ideal which Government expects every head of a department to live up to. But, with increased experience Mr. Gubbins rectified the errors of his past and during the eight remaining years of his Directorate he enjoyed to the fullest extent the confidence of Government."

The official *Gazette* contained the following notification:—

"Government cannot permit Mr. Gubbins to relinquish the position of Director of the Circumlocution Department without placing on record their appreciation of the services he has latterly rendered the country. His ready compliance with the orders of Government and the zeal he exhibited in referring all questions to them for their decision, which he invariably accepted without demur, entitle him to the high commendation, which Government are now pleased to bestow upon him."

The officers and subordinates of the Circumlocution Department, which was latterly known to be the slackest and happiest of all the branches of the service, came forward to show their appreciation of their late chief's administrative skill. They subscribed for a portrait of Mr. Gubbins, which our readers will shortly have the opportunity of seeing slung up on one of the walls of the Circumlocution office.

Let us now leave Mr. Gubbins in the enjoyment of a well-earned pension and in the happiness, which, some one (we forget who) has assured us, is only obtainable in the possession of a devoted spouse and of a numerous and loving progeny.

VERNACULAR ADVANCED EDUCATION IN THE PUNJAB.

It is a coincidence that while the Northernmost University of India is striving to improve an already established system of advanced education through the medium of the vernaculars, the Southernmost University should be contemplating the establishment of a similar system. One has only to glance at the calendars of the Punjab and Madras Universities to see that what is a necessity with the former is a luxury with the latter. The Act of Incorporation of the Punjab University (Act No. XIX. of 1882) says in the Preamble:—"Whereas an Institution, styled at first the Lahore

University College, but subsequently the Punjab University College, was established at Lahore in the year 1869, with the special objects of promoting the diffusion of European Sciences, as far as possible, through the medium of the vernacular languages of the Punjab, improving and extending vernacular literature generally, affording encouragement to the enlightened study of the Eastern classical languages and literature * * *. But it was at the same time provided that every encouragement should be afforded to the study of the English language and literature, and that, in all subjects which could not be completely taught in the vernacular, the English language should be regarded as the medium of examination and instruction. * * *. And whereas it is also expedient that the University so constituted should be incorporated, etc., etc." The Act of Incorporation of the Madras University (Act No. XXVII. of 1857) has its Preamble as follows:—" Whereas, for the better encouragement of H. M.'s subjects of all classes and denominations within the Presidency of Fort St. George and other parts of India in the pursuit of a regular and liberal course of education, it has been determined, etc., etc." The Punjab University is apparently not satisfied with its efforts in the direction of higher vernacular education, which, as we have shown, is one of the chief objects of its existence. Hence the appointment of a committee and a sub-committee.

The report of the Sub-Committee, consisting of Sir William Rattigan, Rai Bahadoor P. C. Chatterjee, Pundit Harikishan Kaul, and Dr. Stein, on the prospects of advanced education through the medium of the vernacular is an extremely able defence of that much maligned institution, the Oriental College at Lahore. It is impossible to read this portion of the Sub-Committee's report without sharing in the opinion, arrived at by that body, that the attendance at, and the examination results of, the College showed that it had, considering the obvious disadvantages under which it laboured, justified its existence. Even on the basis of the cost of educating a student, the report proves that the Oriental College is not such a comparatively expensive establishment as some writers would have us believe. The general conclusion arrived at by the Sub-Committee was that the experience of fourteen years, now available, is not sufficient to enable the University to finally decide on the real merits of the question, which was referred to the Sub-Committee.

This does not appear to be a satisfactory *finale* of the Sub-Committee's deliberations.

The portion of the Sub-Committee's report as far as it refers to the future is extremely brief and consists of a pronouncement on the vexed question of competent teachers *versus* suitable text-books. The Sub-Committee favours competent teachers and deprecates text-books. The Committee, which appointed the Sub-Committee, referred to, does "not wish to underrate in any way the value of text-books." Vernacular text-books are probably as useful to the student, who knows only the vernacular, as they are to the student, who can read English. No one denies the great assistance they render the latter. In fact, they constitute the principal means of redeeming the Indian student from that great fault of his, *viz.*:—complete reliance on his teachers. It is to be hoped that the Punjab University, while doing its best to encourage competent teachers will not forget to likewise encourage the publication of suitable vernacular text-books. On the whole, it is doubtful how far the Punjab University has benefited by the deliberations of the Committee and the Sub-Committee. The Senate has been shown that the Lahore Oriental College has not only not been a failure but can also lay claims to a certain amount of success, and has been informed that its experience of higher vernacular education has not been sufficient to enable it to come to a definite conclusion about its proceedings in the future. That august body has also been favoured with the opinions of the Committee and Sub-Committee on the question of vernacular text-books. *Voila tout.*

THE RAJAHMUNDRY COLLEGE.

We have been favoured with a copy of the annual report for 1896-97 of the Rajahmundry College, and of the Acting Director's review thereof, the latter, containing, for reasons given in a previous article, figures for the past quinquennium. The Arts Section of the College is chiefly of interest as it represents the only direct agency employed by the Madras Government for furthering higher education in the notoriously backward Telugu Districts, while the Training Section claims attention as being an experiment for providing these districts with competent teachers,

The report before us seems to show that the Arts Section of the College is maintained for the benefit of the population of the Godaveri District, for out of a total of 88 students 73 came from that District, while the remaining 15 were natives of four other Telugu Districts. As might be expected Brahmans formed the majority of the 88 students, for no less than 73 of them belonged to the twice-born caste. Non-Brahmans numbered 12, Muhammadans 2, while the Uriya community contributed a solitary representative.

The strength of the Arts Section during the past quinquennium was as follows:—

	1893.	1894.	1895.	1896.	1897.
Junior F.A. Class	22	19	25	28	30
Senior do.	35	31	21	30	24
Junior B.A. Class	18	14	19	11	13
Senior do.	29	23	22	28	21
	104	87	87	97	88.

It will be noticed that there was a fall in the numbers during the last official year. The Acting Director however sees a hopeful sign in the steady increase in the strength of the Junior F.A. during the past five years. Let us hope that he is right. Only one student belonged to the "richer classes," while 79 came from the "Middle classes."

As regards numbers the Rajahmundry College, Arts Section, does not figure well, but when we turn to the examination results, the institution appears in a pleasing light. The percentages of passes at the F.A. examination and at the various branches of the B.A. examination, were much higher than those for the whole Presidency. The exact figures will be found in another article.

The net cost of the College decreased from Rs. 34,806 to Rs. 26,015 and the net cost of educating each student from Rs. 366 to Rs. 310. The absence of the permanent Principal on leave and other changes in the staff were accountable for this economy.

We have already spoken of the Training Section as an experiment. This Section during 1895-96 looked as if it meant to make a speedy and undignified exit from the educational world, but during the succeeding year Mr. Middlemast and the staff under

him have demonstrated that a Training institution can show excellent results even in a Telugu District. The following was the strength of the Training Section on the 31st March 1897, the figures for the previous year being given for the purpose of comparison :—

	1896.	1897.
First Grade Collegiate	6	3
Second do.	3	7
Upper Secondary	10	13
Lower do.	13	15
Primary	26	25
	58	63

The examination results in the written tests were excellent and in the practical tests fair. We should however like to know why the Principal has shown certain students, who were trained in 1895-96, among the candidates for the last L. T. degree examination. The following table gives particulars :—

Class.	Examination.	WRITTEN.				PRACTICAL.			
		Number appeared.	Number passed.			Number appeared.	Number passed.		
			Trained.	Untrained.	Total.		Trained.	Untrained.	Total.
L.T.	L.T. (University) ...	* 9	7	..	7	7	4	...	4
Second Grade Collegiate.	Teachers' certificate.	10	8	1	9	3	...	1	1
Upper Secondary ...	...	12	4	6	10	8	2	...	2
Lower do. ...	...	14	2	11	13	2	1	1	2
Primary	...	40	25	12	37	3	2	...	2

It is satisfactory to notice that the Practising Section, so important in a training institution, contained 374 pupils ; of thes-

* Includes students trained last year.

161 were in the Upper Secondary Department. Out of the 30 boys presented for the Matriculation only 13 possed. The net cost of the institution to Government was only about Rs. 10,000.

During the year Mr. Metcalfe, the Principal, retired on the expiration of his furlough. The Acting Director of Public Instruction makes the following appreciative remarks concerning this officer:—"During the year Mr. E. P. Metcalfe, who had been connected with the institution for 23 years, retired on the expiration of his furlough, and the Acting Director is glad to avail himself of this opportunity of placing on record an official recognition of Mr. Metcalfe's excellent services in the cause of higher education in the Northern Circars. Under his parental and fostering care, the Rajahmundry College emerged from the humble condition of a Zillah School, and attained its present rank and influence as a first-grade College and Training institution. Mr. Metcalfe's many eminent qualifications as a teacher, combined with his tenderness of sympathy and a large-hearted generosity, deservedly won for him a high place in the affection and esteem of his pupils, who, it is pleasant to know, are endeavouring to perpetuate the memory to his cherished name in connection with the institution over which he so long and ably presided. The Acting Director hopes the Metcalfe's Students' Home will soon be an accomplished fact."

As is known Mr. Middlemast has been confirmed as Principal of the Rajahmundry College, in which position he had been acting since the commencement of 1896.

POETRY AND IMAGINATION IN SANSCRIT WORDS.

(1) "As the oak from the acorn" is a common phrase of comparison in the English language. It is used to illustrate the fact that the greatest of things does often exist in its germ in embryo, that is to say, in an imperfect or undeveloped condition. This idea also occurs in a dialogue in the "Chandogya Upanishad" which has been thus translated by Dr. Rajendralal Mitter.

"Uddalaka son of Aruna, says unto his son Swetaketu, 'Bring a fruit of the Nyagrodha tree' (*Ficus Indicus*). 'Here it is, ...rd,' says the pupil. 'Break it.' 'It is broken my Lord.'

'What do you perceive in it?' 'Nothing, my Lord.' Unto him says the father, 'Where, my child, you perceive nothing, there dwells invisibly a mighty Nyagrodha'." It is an amplification of this same idea that is met with in a short Tamil poem, reputed to be the work of Athiveerarama Pandya, a most learned king of Madura in its most halcyon and glorious days. Therein is discussed the possibility of there emanating from a single tiny seed of a small ripe berry of a Banyan tree, another tree of the same species, of immensely large dimensions, with extensive roots and branches, and, not unlike its veritable cousin the famous Kabir Bir on the banks of the Nurbadda, capable of giving shelter to a whole native army in all its four complements and all its paraphernalia. Even so, in a single small word in any language and especially in Sanscrit, which is admittedly and *par excellence* a poetical language, may be contained the germs of a noble imagination which can be developed to a great extent; and this, to an appreciative mind, will be a pleasant occupation, leading as it will, by the principle of Association of Ideas, to other pleasurable thoughts and sentiments.

(2) For instance, in *Saritpati* and other words bearing the same signification in Sanscrit, by a stretch of the imagination, the sea is supposed to be the husband of the rivers. This is surely a poetical idea. This is enlarged upon in a slokam of the Mahabharata, which describes a river as sportively and yet slowly and reluctantly leaving her fountain source on the hills, or in poetical terminology, her parental lodgings, and as gradually gathering herself up on her way and putting on a staid and majestic appearance as she approaches the abode of her husband, or the Ocean.

This sort of poetical conception will not appear to be strange, but will come quite natural to the minds of those who are familiar with the habits and manners and modes of thought of the Hindus, as is evidenced by the action of Sacuntala, as she has been depicted in the world-renowned drama of Kalidasa, when she leaves the hermitage of Kauva, where she was brought up from her infancy, and proceeds to the Capital of her husband King Dushanta. It is hardly necessary to state that the general faithfulness of Kalidasa's representation to nature has been borne testimony to by no less an authority than the greatest of German authors, *viz.*, Goethe. To fully understand the fitness of the abovesaid imagery, it must be

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borne in mind that the names of all rivers in Sanscrit and of their presiding deities, with only a very few exceptions, are feminine and those implying the sea and its proprietary God are masculine.

While upon this subject, one cannot fail to recollect the brief but vivid description of the marriage of the river Cauvery with the Indian Ocean, given at the end of "Tulakaveri Mahatunja," which, in its turn, is apt to remind those that are not unacquainted with it of Spenser's "Marriage of the Thames with the Medway."

(3) Similarly, *Abjineepathi* is one out of more than forty recognised names for the sun in Sanscrit vocabulary. The compound word literally means "The Lord of the lotus pond." The sun is so called because the *Abjinee*, which is of the feminine gender, blossoms, or figuratively rejoices and shews herself up to full advantage, at his rising or appearance in the horizon, as a loving woman would naturally do at the coming of her husband at the threshold.

(4) Again *Amsubana* or literally ray-arrows is another epithet of the sun in Sanscrit. It is most appropriate to him in the tropics, where his powerful rays are quite penetrating in the hot season. This is likewise undoubtedly a poetical idea. Here the sun is likened to a redoubtable warrior in bright armour, sitting in his chariot as the sun in Indian mythology is actually represented to do and shooting forth his brilliant arrows one after another in close succession in all directions. This comparison inversely occurs in Mahabharata Virataparva, ch. 62, where it is said of the hero Arjuna, that "throwing his arrows with great rapidity, he shone in battle like the midday sun in the sultry season." In this connection, it may be incidentally remarked, that one who understands the above comparison, will be better able to realise the felicity of expression or the force of meaning in the name and title of the valiant King Vikramaditya or "the powerful sun" of older days, than one that is not aware of it.

(5) So also, the term *Anala* is a synonym for fire in Sanscrit. It consists of two parts *a* negative, and *alam* sufficient. The imagery seems to be that of a gluttonous giant, who consumes everything that is brought to him by way of food, (which, in fact, is fuel in the present case) and is never satisfied but, with less reason than Oliver Twist, asks for more. This sentiment when

brought home to one's mind, will not fail to remind one of the wise and precious saying in the Bhagavat-Gita, the purport of which is that, "the desire of hungry passions is never diminished but grows greater and greater by its being administered to, like the sacred fire by continued oblations."

(6) Examples, in support of our thesis, might be multiplied in this manner to any extent. But we shall conclude this subject by quoting one more example. *Vayusakha* means fire in the language in question, and *Agnisakha* and words of the same acceptance although perhaps not specially mentioned in any kosa, are given in all modern dictionaries as equivalent terms indicating wind. It is not difficult to understand the propriety of styling fire and wind as mutual friends. It is a matter of every day experience that in a conflegration the assistance of the wind causes more havoc, while the process of creating wind by lighting a bonfire for winnowing corn is well known to even a tyro of an agriculturist in this country. This friendship or concord between the two elements is often referred to by way of example in Sanscrit poetry and several slokams appear in the Mahabharata to that effect. "Like wind and fire" is also another common phrase of comparison in the English language.

K. R. R.

ANNUAL REPORT OF THE MADRAS UNIVERSITY FOR 1896-97.

The forty-first annual report of the Syndicate of the University of Madras was, with a few verbal amendments, adopted by the Senate at a meeting held on the 27th August last. The report is a document which would gladden the heart of a statistician and delight the soul of a worshipper at the shrine of the "percentage demon." The preparation of the tabular statements and the calculation of the percentages could have been accomplished only by the expenditure of a vast amout of arithmetical energy.

The first portion of the report is of a more or less routine character, and will probably not interest our readers. The succeeding pages, giving the figures relating to the various University

examinations, are probably those which will most arrest popular attention. We therefore make no apology for confining our notice of the report chiefly to these pages.

At the fortieth Matriculation examination, held in December last, 5,399 candidates were registered and 5,329 examined. Of these 127 passed in the first class, 1,515 in the second class, thus making a total of 1,642—a percentage of 30·8. The above figures include 110 females registered and 108 examined, of whom 2 passed in the first class and 37 in the second class—a percentage of 36·1.

The following statement gives the Districts arranged in order of merit according to the percentage of passes. It will be noticed that a Telugu District heads the list, while the Nilgiris and French India display a keen rivalry for the honour of the last place.

Order of Merit.	District.	Number examined.	Passed in First Class.	Passed in Second Class.	Percentage.
1	Kistna ...	107	2	49	47·6
2	Trichinopoly ...	216	6	91	44·9
3	Godaveri ...	116	2	50	44·7
4	Madura ...	164	3	67	42·6
5	Tinnevelly ...	239	8	93	42·2
6	Coimbatore ...	113	2	45	41·5
7	South Canara ...	168	8	61	41·0
8	Tanjore	427	18	156	40·7
9	Pudukota	40	1	15	40·0
10	Mysore	368	19	124	38·8
11	Salem	49	1	18	38·7
12	Nellore	70	1	25	37·1
13	Madras	683	26	213	34·9
14	Malabar	287	6	87	32·4
15	Cuddapah	22	1	6	31·8
16	Chingleput ...	111	5	30	31·5
17	North Arcot ...	80	2	21	28·7
18	Vizagapatam ...	132	...	37	28·0
19	Cochin	73	2	18	27·3
20	Kurnool	15	...	4	26·6
21	South Arcot ...	159	7	35	26·4
22	Travancore ...	359	4	85	24·7
23	Ganjam	61	...	15	24·5
24	Bellary	82	1	18	23·1
25	Haidarabad ...	88	...	20	22·7
26	Anantapur ...	10	...	2	20·0
27	Coorg	15	1	2	20·0
28	Private study ...	1,055	1	128	12·2
29	Nilgiris	4	...	...	0·0
30	French India ..	7	...	...	0·0
	Disallowed ...	9	...	...	...
	Total ...	5,329	127	1,515	30·3

The results for some of the better known institutions are given below :—

	Examined.	Passed.
Wardlaw College, Bellary	30	7
Teachers' College, Saidapet	13	9
Coimbatore College	45	23
Training College, Rajahmundry ...	28	12
Noble College, Masulipatam ...	38	14
Bishop Corrie's Grammar School, Madras	10	1
Church of Scotland Mission College, Madras	111	34
Doveton College, Madras	14	3
Doveton Girls' School, Madras ...	4	3
Madras Christian College	112	56
Pachaiyappa's College, Madras ...	132	47
Victoria College, Palghat	42	29
St. Joseph's College, Cuddalore ...	83	20
Government College, Mangalore ...	37	16
St. Aloysius' College, do. ...	33	19
St. Peter's College, Tanjore ...	58	20
St. Joseph's College, Trichinopoly	114	56
S.P.G. High School, do. ...	58	17
Maharaja's College, Vizianagram ...	30	10
Ernaculam College	40	14
Central High School, Mercara ...	15	3
Central College, Mysore	71	27
Maharajah's College, Mysore ...	30	15
Maharajah's College, Trivandrum ...	56	16

For the thirty-third First Examination in Arts, held in December 1896, 1,665 candidates were registered and 1,628 examined. Of these 56 passed in the first class and 425 in the second class, giving a percentage of 29·5. The above figures include only 4 females examined, of whom 1 passed in the first class and 2 in the second class. "Quality before quantity" is apparently the motto of the feminine population of the Madras Presidency as regards the F.A. examination.

The three Government first-grade Colleges fared as follows.

	Examined.	Passed.	Percentage.
Presidency College ...	34	12	35·2
Kumbakonam College ...	36	15	41·6
Rajahmundry College ...	19	9	47·3

The corresponding figures for a few of the better known Colleges are given below.

	Examined.	*Passed.*	*Percentage.*
Central College, Bangalore ...	62 ...	30 ...	48·3
Government College, Mangalore ...	23 ...	18 ...	78·2
Madras Christian College ...	199 ...	64 ...	32·1
Maharajah's College, Mysore ...	36 ...	24 ...	66·6
Pachaiyappa's College, Madras ...	24 ...	7 ...	29·1

For the English Language Division of the fortieth B.A. degree examination 917 candidates were registered and 888 examined. Of these 5 passed in the first class, 76 in the second class, and 252 in the third class—percentage of passes, 37·5. Only one female was examined and she passed in the third class.

The Government first grade Colleges fared as follows:—

	Examined.	*Passed.*	*Percentage.*
Presidency College ...	115 ...	63 ...	54·7
Kumbakonam College ...	38 ...	11 ...	28·1
Rajahmundry College ...	26 ...	15 ...	57·6

The Madras Christian College did things on a grand scale for it contributed 251 candidates actually examined, of whom 100 passed, giving a percentage of 39·8. The Maharajah's College, Trivandrum, with 34 candidates topped the list as regards success, its percentage being 73·5.

In the "Second Language Division" 740 candidates were registered and 720 examined, of whom 18 passed in the first class, 298 in the second class, and 301 in the third class—a percentage of 85·5. One female appeared and passed. Tamil was the first favourite with candidates and Sanscrit was second. In all the languages the percentage of passes was extremely high. Leaving out Marathi in which there were only two candidates, in no case did the percentage fall below 71·7. Either the examination in the second languages is comparatively easy or the candidates are extremely well prepared for the ordeal. As for individual institutions, the lowest percentage obtained was 62·5.

The figures for the Science Division of the B.A. examination are interesting in as much as they furnish a clue not only to the natural bent of the Indian mind but also to the popular idea among students as to which is the easiest branch to pass in. 929 candidates registered themselves for the seven Science branches and of this

number 853 were examined. 19 passed in the first class, 295 in the second, and 253 in the third—a percentage of 66·4. The following table gives particulars :—

Branch.	Examined.	Percentage passed.
Mathematics	135	56·3
Physics	141	61·7
Chemistry	43	65·1
Zoology	35	91·4
Geology	6	83·3
Mental and Moral Science ...	269	64·3
History	224	74·1

A solitary female candidate appeared and was successful.

The Government first grade colleges figured as follows:—

	Examined.	Passed.	Percentage.
Presidency College ...	139	105	77·6
Kumbakonam College.	29	18	62·0
Rajahmundry College..	22	13	59·0

The success of the Madras Christian College should be noted. 243 of its students were examined and no less than 72 per cent. of them were successful.

The remaining University examinations, owing to the small number both of candidates and of institutions sending up candidates, are not of such interest as the three examinations dealt with above in detail. The following table summarises the results :—

	Registered.	Examined.	Passed.	Percentage.
M. A.	31	... 24	... 5	... 20·8
L. T. (Written) ...	82	... 75	... 54	... 72·0
L. T. (Practical) ..	73	... 68	... 36	... 52·9
F. L.	534	... 491	... 129	... 26·2
B. L.	209	... 203	... 52	... 25·6
M. L.	3	... 3	... —	... 0·0
First L.M. &. S...	12	... 11	... 7	... 63·6
Second L.M. &. S.	32	... 29	... 19	... 65·5
Preliminary Scientific.	17	... 17	... 11	... 64·7
First M.B. &. C. M.	6	... 5	... 2	... 40·0
Second M.B. &. C. M.	3	... 3	... 3	... 100·0
M.D.	1	... 1	... 1	... 100·0
F. E.	8	... 8	... 3	... 37·5
B. E.	8	... 7	... 3	... 42·8

As to castes, it is almost needless to say that, with the exception of the Medical examinations, the large majority both of candidates examined and of candidates passed were Brahmans.

In its financial aspect the Madras University furnishes a good example of cutting the coat to suit the cloth. The receipts (excluding interest on Government securities) exceeded the expenditure by Rs. 40. This sum added to Rs. 9,242, interest on Government securities, represents the balance for the year.

A SHORT HISTORY OF EDUCATION IN *ANCIENT* INDIA FROM 2000 B.C. TO 1154 A.D.*

It is really painful to follow the slow gropings of the primeval Aryans and to gather up the faint traces of their primitive education. Many thanks to the learned scholars—eastern and western—that have worked in this field with untiring patience and have left us a monument of their labours. The mist which hangs over this portion of history is not, now, too thick to allow a peep through. It is possible to the earnest student to collect a continuous and logical record of the progress of education among the Aryans from the time they set their foot on the Cashmerian valley down to the golden days of the modern Victorian age.

About twenty centuries before the birth of Christ we find the Hindu Aryans divided into a number of clans or families, each headed by the father of the family and all marching under the banner of a single chieftain. A century after, we find them again as conquerors and settlers, on the banks of the Indus and its five branches, full of vigour and capacity for active enjoyments. The epoch was one of war and victory, and the Aryan conquerors boasted of their victory in simple and beautiful hymns. The beauties of the Cashmerian valley also did not fail to attract their attention and excite their admiration. Whatever was bright and beautiful and glorious in the aspects of nature struck them with reverence; and such manifestations of nature were worshipped and made the subjects of their hymns.

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* A paper read by M.R.Ry K. V. Subbiah Aiyar, B.A., before the Teachers' Association, Saidapet.

The language of these hymns, as embodied in the Rig Veda, the only and wonderful product of the Vedic period, was the language of the hearth. It was free and spontaneous without being restrained by the chains of Grammar or prosody. Such being the nature of the language of the Rig Veda, the children were taught these hymns at the age of seven; or a little after. They all joined the father in chanting these hymns and invoking the gods. This formed the only intellectual education of the young Hindu Aryan. When he himself became a father he invented hymns and taught them along with those of his forefathers to his own children. This was not the only work of the father. As the teacher, priest, and governor of the family he had to teach his children the management of cattle, the way of rearing them, and so on. As a member of a conquering race he had to prepare for war, not only himself but also his sons. The way in which the Aryan sons were trained for war is not clear to us; but we may suppose that the roaming about the jungles at early morning to graze their cattle, the running and jumping along the proud ridges of the Cashmerian mountains were alone sufficient to strengthen their limbs. Thus we see that the rote-study and the composition of hymns which cultivated two of the most important faculties of mind, the memory and the imagination, formed the intellectual education of the Aryans; and the chief feature of this education was that it was thoroughly home-education.

Before passing to review the state of Aryan culture in the Epic Period, we think it will interest our Hindu brethren to know that Saunaka, Visvamitra, Vamadeva Atri, Bhâradvaga, Vashishta, Kanva, and Ângiras, rishies from whom we Hindus boast to have been descended, are the authors of several mandalas of Rig Veda, and as such furnish us with a clear though meagre knowledge of the education that enlightened their brethren. And it is also worth noting that many women were educated and composed hymns. For, this gives us an idea of the status of female education even in those remote days of India. Visvavara stands pre-eminent among these poetesses.

From the Nature-worship of the Vedic Period we pass on now to the Pitar-worship of the Epic Period. The details of worship during this age became more and more complex and developed as

the ideal of religious conception became higher and higher and the spread of conquests greater and greater. Consequently, it became almost impossible for the father of every family to attend at the same time to military as well as religious duties. Hence the Aryans set apart certain families to carry on the religious duties of all the clans. The major portion of the rest of the Aryans formed the fighting class while the minority formed the trading community. This division of caste—for so it turned out afterwards—welded together the different families and created a sense of solidarity among them since it had not the baneful seclusion of each caste to itself which characterised the rationalistic period of Indian History.

The Brahmans or priests had not only to look after the religious duties, but also to educate all the youths of the Brahman, the Kshatriya, and the Vaisya caste. All the youths went to these Brahman schools at about the age of seven and learnt by heart the hymns and the slokas of the Brahmanas—a work which determined the way in which the sacrifices and the rituals had to be performed. After "getting up" the stanzas of the Brahmanas they had to understand their meaning as thoroughly as possible. To aid them to achieve this end the sciences of Itihasa (grammar), and Vâkonakya (logic), Deva Vedya (Etymology), and Brahma Vidya (Prosody and Pronunciation) were invented and taught. New altars were to be built to serve the increasing needs of worship and the science of Geometry was now produced to help them in the construction of the altars.

This formed the curriculum of studies in the Epic Period. The rote-study and then the understanding of the Brahmanas which also included the study of Grammar and Logic, had to be gone through by every Aryan. The higher studies of Philosophy and Mathematics were reserved for the Brahmans alone. Besides these the Kshatriyas had to go through a course of military drill and gymnastics. It is worth noting that these schools also were opened and managed by Brahman instructors. Dhurona was the warrior Brahman whose name should be familiar to every student of the Mahabharata. In fine, the whole of this education comprised a course of twelve years. Only at the age of thirty, an Aryan ceased to be a student and was allowed to marry.

Thus, this state of affairs lasted for about three centuries, everything being under the guidance and control of the Brahmans,

But about 1300 B. C., the Kshatriyas clearly saw the trick which the Brahmans had been playing till now. They did not discharge the duties entrusted to them honestly and well. They composed new and rigid rules as to the giving of the dhakshina (golden coin and corn) to the Brahmans and added them to the original text (*vide* Chandogya Upanishad v. 13, 17, 19.) Consequently some of the Kshatriyas, after having gone through the course of education described above, betook themselves to the forests to make philosophical inquiries "and there started the first philosophical University of India." Thus, special schools of Philosophy were started in the forests by the Kshatriyas. Brahmans and others went to these schools, the former probably with the mind of refuting the Kshatriyas in philosophical arguments, the latter with a view to learn philosophy from them. The Âranyakas describe very well the nature of education given in these forest schools. In truth, these schools gave rise to the Vâna Prasthâchrama on which we shall dwell more fully when speaking of the Rationalistic Period. The Upanishads, ten in number, embody the philosophical doctrines of the Kshatriya schools. Janaka and Pranâhana Jaivali stand pre-eminent among the Aryan inquirers of philosophy. Maitreyi, the wife of Yâjna Vâlka (Brihadaranya Upanishad) formed the central gem of a group of female philosophers spoken of in the Upanishads.

A rapid yet careful perusal of the accounts of the curriculum of studies given above will clearly indicate that the invention of new books and the consequent increase of restraint over the religious privileges of the non-Brahman community kept pace with the growth of the priestly power. And it was clearly seen by all that it would be long before they could shake off this Brahman yoke. They had, in spite of their knowledge of the sham superiority of the first sect, to undergo the above course of training; and training, in the sense of the Brahmans, was nothing more than the rote study of the Brahmanas.

This onerous pressure put upon the Aryan minds roused at the beginning of the 10th century B.C. their practical and energetic spirit. "All learning, all sciences, all religious teaching were reduced to concise practical manuals." Brevity is the characteristic of the Sutra literature as verbosity is of the Brahmana litera-

ture. The diffuse details of the Brahmans were condensed into short Sutras in order that they might be imparted and learnt with ease. Sutra schools sprang up all over India and works were multiplied. Âpastamba wrote his Kalpa Sutra to form a handy manual bearing on sacrifice. Pingalanaga produced an excellent work on metre (Chhandos). Yaska's Nirukta (Lexicon) and Panini's Vyakarna (Grammar) were brought to light early in this period. To these were added the wonderful Ânukramani of Kabyâyana which gives the first word of each hymn, the number of verses, the name of the poet, the metre, and the deity. Nor was Mathematics altogether neglected. It had its own numerous manuals. Though Geometry declined as the fire of the altar was beginning to be replaced by the idols of the temples, Arithmetic and Algebra were carefully studied. Decimal fractions were for the first time invented during this epoch. These were, in short, the subjects taught in the Sutra schools started during this epoch.

Before going to examine the state of education in the 7th century B.C., let us make clear to ourselves the connection which these Sutra and the Brahmana schools had with the forest University. These two kinds of schools were in some places together. The students, in this case, attended alternately the lectures of the Sutra and the Brahmana masters. In the case of these schools being separate and located at different places, the students had to have attended a certain number of lectures of the Sutra masters before they were allowed into the Brahmana schools, which directly prepared the students for the forest University where they were taught the philosophy of the Upanishads.

In this connection it will be interesting to compare this Hindu forest University with the Middle Age Universities of Bologna and Paris; and this comparison, I am sure, will throw much light on this subject. Like the Middle Age University of Paris, this Hindu University was 'a specialised school'; and as the great Abelard started the University of Paris in the jungles where he was driven, so the Kshatriyas founded their University in the forests of Bharata Kanda. Both these Universities taught philosophy. Both were bodies of "*Magistorium et studiorum*" though they should be more correctly called bodies of '*Magistorium*' only, since they were founded by masters and not by students as in the case of the Bolognian University. Like all the Middle Age Universities of Europe this

forest University of India gradually gained numerous privileges from the reigning kings and finally succeeded in enrolling, as one of its masters, Sankara Acharyar, the first and greatest of the Indian Brahman Pontiffs. It had no buildings of its own, and so could travel from one place to another in order to facilitate the coming of students from the several parts of India. Wherever it went, it established numerous boarding houses comparable with the 'Colleges' of Oxford and Paris. It had the power of cenferring various degrees. To the faculty of Philosophy was, later on, added the faculty of Law. The fine law schools near Benares alluded to by Monier Williams in his 'Indian Wisdom' instructed students in the subject of the Hindu law as expounded by Manu. [This para should end with a word of warning. The terms 'university', 'lectures', 'degrees', 'faculties' should not be taken to denote *exactly* what we mean now by those terms, though they were adopted, no doubt, to assist us in gaining precision of thought; but we must not gain precision at the expense of accuracy. They were adopted since we have no other terms to express accurately what we want.] The bold speculations started in the university works were pursued.

In the 7th or 8th century B.C. Kapila arose and started the Sankhya Philosophy—"the first," says Mr. Dutt, "clearly reasoned system of mental philosophy known in the world." Other systems of philosophy were started by other thinkers, but the Sankhya philosophy was destined to have the greatest influence upon the future of India. For, Gaudhama Buddha was born in the 6th century B.C. and he added to the cold logic of the Sankhya Philosophy a world-embracing sympathy and love for mankind, which made the priest-craft no more possible and brought education to the very threshhold of the hut of even the ignorant and downtrodden sudra. Guadhama Buddha deserves, in my humble opinion, the claim of being the first powerful advocate of primary education in India. Not only this, he was also the first originator of public primary schools for all classes, Brahman or Pariah. Thus when the intellect of Kapila, the Voltaire of Ancient India, was joined to the heart of Buddha, the Indian Rousseau, the whole organisation of the Hindu community was set right and nourished.

I think I cannot better conclude this period than by quoting the learned words of Mr. Dutt on the student life during this epoch. "The turning point of a young man's life seems to have been his

initiation as a student." A Brahman boy was initiated between 8 and 16, a Kshatriya between 11 and 22, a Vaisya between 12 and 24. The initiated boy then lived as a religious student in the house of his teacher for 12, 24, 36 or 48 years according as he wished to master one, two, three or the four Vedas. During this period of his life he avoided all spiced food, perfumes, and articles of luxury; he tied his hair in a knot; he bore a staff and a girdle and a cloth of flax or hemp or even only a skin. Avoiding all places of amusement and of pleasure, restraining his senses, modest and humble, the young student went out every morning with his staff to beg for food from charitable householders in the neighbouring villages, and all that he obtained in the course of the day, he placed before his teacher and he only tasted food after his teacher had done with his meals. He went to the forest to fetch fuel, and evening and morning he fetched water for household use. Every morning he swept and cleaned the altar, kindled the fire and placed the sacred fuel on it and every evening he washed his teacher's feet and rubbed him and put him to bed, before he retired to rest. Such was the humble, obedient and simple life which ancient Hindu students led when they devoted all the energies on the mind to the acquisition of the sacred learning of their forefathers. Instruction, it is needless to repeat, was imparted by rote. The student respectfully held the hand of his teacher and fixed his mind on the teacher and said: "Venerable Sir! recite" And the Sanitri (the well-known Gayatri verse of the Rig Veda) was recited and learnt as the introduction to the learning of the Vedas. And from day to day new lessons were recited and learnt.

Now we pass on to the brilliant reign of Asoka. During the reign of this mighty monarch Brahman schools flourished side by side with Buddhist schools. But the Buddhistic doctrines had a marked effect on Hinduism and consequently on the curriculum of studies in the Brahman schools. Hindu science and learning of the post-Buddhist age place no reliance on the Vedas.

The next period, covering 7 centuries, from 500 to 1194 A.D., was famous for the numerous Puranic schools, that sprang up during this epoch. These schools, I call Puranic schools for, they were chiefly devoted to the study of the Puranas which are only the metaphors and similes of the Vedas crystallised into

legends. These schools showed a complete estrangement and emancipation from the Vedic schools of the pre-Buddhist age. The curriculum of studies in these Puranic schools was quite different from the one of the Vedic schools. Dramas, novels, epics, and works of astrology were the products of these Puranic schools.

Even in the Vedic schools of this period the studies had degenerated to mere 'verbalism' and the philosophical books read in these schools were used as apparatus in mental gymnasium. I cannot but quote, in this connection, the words of Carlyle referring to the studies of the schoolmen of the Middle Ages since the resemblance is too vivid to refrain from doing so. "Consider the old schoolmen and their pilgrimage towards truth! the faithfullest endeavour, incessant unwearied motion; often great natural vigour, only no progress; nothing but antic feats of one limb poised against the other; there they balanced, somerseted, and made postures; at best gyrated swiftly with some pleasure like spinning dervishes and ended where they began." (Characteristics, Misc., Vol. iii. 5).

The Puranic and the Vedic schools were not the only ones that existed during this epoch. As was stated above Buddha through his influence and power originated regular elementary schools and these had taken their firm root and later on became important channels to the secondary schools. These schools existed in most of the villages of India, a country of agriculture and villages. At about six o'clock in the morning, from six to twelve nearly, all the boys would assemble in a shed belonging either to the village or to some individual. Where no hovel was available the school-room would be nothing more than the shade of some wide-branching tree. The teachers were supported not by regular fees, but by presents on leaving and other occasions, by weekly or monthly gifts in money, grain, food, cooked and uncooked, or clothes, the whole varying in monthly value from half-a-rupee to seven rupees. All the teaching was oral. The boys commenced schooling at the age of five or six, and the five years during which they attended were divided into four well-defined stages. For the first ten days they were occupied in tracing the vowels and consonants, first with their fingers on sand and afterwards with a 'stylus' on the palmyra leaf. It was only during the following year that writing

on the palm leaf was regularly practised. Six months were next spent in studying the four rules of Arithmetic. The last period was devoted to advanced Arithmetic and Mensuration.

DICTATION.

The Dictation exercise in schools, is, by many teachers, held to be only a means of testing spelling. It is a view too common among the members of the teaching profession that dictation classes can be satisfactorily conducted by teachers, good, bad and indifferent. In some schools, such exercises are entrusted to the monitor of the class or a pupil of the senior class under the impression that they require no intelligence or skill on the part of the teacher. It is therefore not surprising that such teachers are astonished when they are told that dictation has a place of its own in the system of education, that great caution is required on the part of the teacher in securing the aims of dictation and that it has an aim higher than what is usually attributed to it. In the modern system of teaching, it should be regarded as one of the steps in the process of leading children to write their mother-tongue and to express their ideas in written, instead of in merely spoken language. Original composition is our ultimate aim; and spelling, transcription, writing, dictation, grammar and composition are only the various means employed to reach that goal. Dictation exercises are begun in those classes which contain pupils who have passed the stage of copying single words and passages directly from books, *i.e.*, translating the printed into the written character and who have learnt the spelling of single words.

Dictation should come after transcription. The latter is a matter of the eye, while dictation requires the use of both the ear and the eye. From experience and growth of the mental powers the pupil is able to form a distinct mental picture of the words he sees and reads; and there springs up a close connection between the impressions produced on the two senses. This faculty must now be improved by making him depend on the mental picture of the words which the sound calls up and transfer it to the slate or paper. The pupil must therefore have seen a word and pronounced it and repeated the latter a number of times while looking at the word, or while writing the same on slate or paper, so that the mental picture of the word is closely associated with the sound; eventually when the word is pronounced in dictation, the sound calls up the image of the word which he has to copy on the slate.

Preparation for the Exercise.

Dictation may be made highly useful to the boy by his careful study of the passage to be dictated. Dictation exercises without previous preparation of the pupils are not only devoid of any value but are productive of real harm. Take a particular case. When a word, of which a pupil has no clear mental picture to guide him in writing it, is dictated to a class, he has to write something; he guesses and probably puts down the word wrong. Once he has written it, he obtains a mental picture of the word in question from his slate, but it may be a wrong one. But he has got two mental pictures in his mind for the same word, one right and the other wrong. The teacher has, in consequence, to devise some method of teaching him to distinguish between the two pictures and to select the correct one, when both are suggested by the sound of the word in question. The teacher can devise some means to strengthen the impression of the right form, but he does not know how to make the pupil forget the erroneous one when once it has been presented to the mind. Hence a teacher should never dictate anything but what has been prepared beforehand. But the kind of preparation required differs with different classes. In the first few classes, the best preparation is obtained by making the pupils transcribe the passage to be dictated at home, the day before the dictation exercise is given; at the dictation lesson a careful reading with special attention to spelling will be sufficient, while in the highest classes, it is enough to previously direct the attention of the pupils to the more difficult and uncommon words only.

The length of the passage to be dictated.

In dictation it is very important that exercises should gradually increase in length. For the lowest class, one sentence is enough with a few words familiar to the boys in their reading lessons. Thorough preparation is, as stated above, needed; else the exercise is of little use. During revision of the lessons, the whole lesson being familiar to the pupils, only the hard words need special study. Hence the aim of the teacher must be to 'hasten slowly'.

Dictating.

Before beginning to dictate, the teacher must divide the whole portion to be dictated into distinct periods, so as to familiarize the pupils with whole phrases and with the proper pauses. It is a common fault among beginners, while dictating, to repeat the same phrase many times. They sometimes do it unconsciously. The aim in dictation is to enable children to grasp a phrase as a whole and then write it down. But by repetition this aim will never be gained, since the pupils will

never take the trouble of grasping the whole phrase, if they are sure of hearing each word of the phrase repeated as soon as they are ready for it. This mistake brings other evils in its train. It distracts the attention of the pupils, for they are made to hear while they are writing down what they have got in their minds and thus they are led to commit many blunders. Secondly, the teacher fosters the habit of inattention in his class since he speaks while they need not attend to him; and if this practice be continued, they attend to the first few words dictated feeling sure that they can readily pick up the remaining words when the teacher dictates the portion again. As a result of such a habit, the evil spreads to other lessons as well and the teacher cannot secure the attention of the pupils to what he says by saying it only once. Thirdly, needless repetition is a waste of the teacher's energy which a teacher should take special care to economise.

The periods into which the portion to be dictated should be divided vary in length according to the class. In elementary classes, it may be necessary to dictate single words only. But a higher kind of dictation can be had recourse to in these classes, in which the pupils have made a good use of their transcription exercises. When a passage, transcribed already in the class, is dictated, the pupils may be required to write two or three words at a time. In the higher classes, if the students were allowed to prepare the passage at home, or in the class previous to dictation, there is no reason why each period should not be of sufficient length so as to make the pauses at the places customary in ordinary reading (as the sense requires).

Examination of the Exercises.

In order that the teacher may know that the words are correctly written and may learn the probable cause of error, if any, and in order that the pupils may give their best attention and care to the exercise, it is absolutely essential that every exercise should be seen by the teacher. Generally, we have large classes, so large that it is difficult and even impossible for the teacher to correct all the exercises himself within the allotted time and find out the causes of the errors made. If the best results are to be obtained, the teacher's personal supervision and review of each exercise are indispensible. For this reason again, in the lower classes the dictated passage should be short; and clear writing should be insisted on, so that a single glance at the exercise is enough to discover any case of bad spelling. In the higher classes, as a makeshift in most of the cases, the pupils may be asked to correct their neighbour's exercises in pencil and that only as a preliminary to the teacher's own examination. This plan helps to shorten the time

required for examination; but if it be used as a substitute for the teacher's work, the plan will prove ineffective for obvious reasons.

Writing on the Blackboard.

After the exercises have been corrected, it should be the rule to write the important words plainly on the blackboard. The pupils are thus helped to form a clear mental picture of the words and to correct their errors.

Causes of errors and their treatment.

The chief aim of the teacher is to prevent errors in spelling; the next is to correct them when made. It is needless to say that even with careful preparation errors often arise, and it is the business of the teacher to know how these arise in order to find out the best means of correcting them. The various causes that lead to errors in dictation exercises are the following :—

1. The pupil may have no clear picture of the word in his mind and he writes down something.

2. He may have a clear but an erroneous picture of the word in his mind, due to carelessness in the preparation of the exercise; but he carefully writes down the word as he learnt it and not as it should have been learnt.

3. He may have a clear and correct picture of the word in his mind but the error might be due to 'a slip of the pen' and he may write down what he had not in his mind without noticing the blunder. This is the result of faulty observation of what he is writing down, probably due to his directing his attention to something else at that moment.

The method of correction must be adapted to the cause of the error made. If the teacher could, in each case, learn which of these causes operated in the particular case, it would simplify correction; but this discovery is very difficult to make. Errors of the third kind practically require little correction. In these cases it is sufficient to direct the attention of the writer to the slip.

In most cases, something more is needed and the sound method is only to follow the old-fashioned plan of making the pupils refer to their books and copy out correctly the misspelt words a dozen times or more. But this should never be regarded merely as a punishment for making the blunder; it is really the best means of fixing in the pupil's mind a correct image of the word and the repetition is a powerful means of securing permanence in memory.

Caution.

Young teachers need here a word of caution. They should not go away with the idea that the causes of the errors are to be sought for

only in the pupils. When an error is made by a great number of pupils in a class in any subject, the teacher should first examine himself; it is likely that his method is faulty and hence the error can be removed by him with a little care and attention. If spelling mistakes are made in dictation by several pupils, the teacher should seek for the causes of these errors and correct them accordingly. In dictation exercises, while errors will occur under any circumstances, these should be regarded as exceptional and not as inevitable. Dictation exercises, when conducted properly, should contain no errors in the case of the majority of the class. Young teachers frequently give a list of difficult and uncommon words to test their pupils and such exercises contain many blunders. If dictation exercises habitually contain many blunders in the case of the majority of a class, we must expect to discover a serious fault somewhere. Either the class is being asked to do too much, or the class is careless and the teacher has failed to secure their co-operation.

Unprepared Exercise.

Sometimes dictation exercises without previous preparation are made use of merely as test exercises in the junior classes in the examinations. This is one of the uses of dictation totally different from what has been considered already, *i.e.*, a means of enabling the students to develop facility in writing their mother-tongue. But the 'unprepared exercise' is merely a spelling test or a test of spelling, writing and punctuation combined. These exercises may be used to discover what the pupils do not know but not for teaching anything anew, except indirectly in as much as the exercise is followed by a study of the words misspelt. As a spelling test it may be made a much more difficult exercise at the will of the examiner by the choice of a passage containing a large number of uncommon words and in this case it is a much more difficult exercise than the composition exercise, since, in the latter, the pupil can use any word he is more familiar with, while in the former he cannot avoid words which he cannot spell. Except for its use in examinations, this kind of unprepared exercise is of doubtful value.

M. C. S. ANANTAPADHMANABHA RAU, M.A., L.T.

PRIMARY EDUCATION IN MADRAS.

Sometime ago, I wrote a few words on the defects of primary education in general as it is conducted by us. I referred all shortcomings of our primary school system to their proper source—namely,

our imperfect realization of the ideal of a primary schoolmaster. In fact, it is in the primary school that all the foundation for future learning is laid and if we remember that, according to the present Educational Regulations, fully five years of the school course are spent in the Primary Department alone, we can understand the importance of having almost the very best teachers to teach our young.

In the majority of cases parents do not realize this. Even those in higher places who ought to realise this do not practically do it but let the present system go its own way, pleading want of funds. Further, the Government who might be expected to give the best primary educacation possible to the young under their care, do not attempt to attract the best teachers by offering adequate remuneration.

But apart from this radical defect there are some minor defects which could be easily removed. The foremost among these minor defects is the curriculum of studies for the several standard classes. I wish to say a few words about this aspect of our primary education in this paper.

The first defect I note in the primary school curricula is the introduction of multiplicity of languages. Before the boy has had two years of training in his own vernacular he is made to learn the English language. It is true the Madras Educational Rules make English optional in the primary grade. But as the majority of the boys continue their studies into the lower secondary and as lower secondary education is based upon English, a certain amount of knowledge of that language is presumed in a boy seeking admission into the 1st form class. So English becomes practically compulsory even so early as in the primary grade and boys of ten and eleven are expected to know the first principles of two languages. This is a fruitful source of evil. While the young ideas are not yet properly framed and while familiar sounds used to express them are not firmly grasped and distinctly remembered foreign and unfamiliar sounds are introduced to complicate the whole and the result is Vernacular sounds and English sounds are mixed up by all manner of false analogy and confusion follows. While one language could be well learnt with sufficient depth and breadth in the course of five years—the duration of primary education—boys are made to learn two languages with little or no groundwork. I do not see any efficacy in this early taking up of English. It cannot be contended that a Primary boy's English is worth anything. It is also patent to reason that in the secondary course, extending over six years, enough of it can be learnt—as much as is now done if not more—for we have only to look back upon the results achieved even here two or three decades

ago when after a period of even less than five years' schooling, pupils matriculated, with certainly more real scholarship.

Again, in Mysore, I find even a worse state of things. As though two languages are not enough for a boy, in the third standard class for instance, a third language is taken up, *viz.*, Sanskrit. The poor boy is made to learn all the varieties of forms of inflection of *Nalanthas* and *Ayanthas*. He is made to get up Amara—a barbarous survival of stupid teaching; he is made to learn by rote Ramâyana Sangraha. His Sanskrit studies are not yet at an end. He learns the Katha Saptati to boot. I do not see why this state of things is allowed to continue. When questioned, the teacher remarks that Sanskrit is only meant to be an optional subject, and boys who would not take it up may confine their attention to Kanarese and study some extra Kannada verse and grammar. I am not a Kannada knowing man myself and so I cannot judge of the standard of Kannada required; but judged from the Sanskrit course it must be considerable indeed. But above all what does this institution of an optional language in the third standard mean? I understand the *rationale* of it with reference to different vernacular languages to suit the different sections of people. Even here, I would insist on all to learn the language of the locality. But why should a difficult classical language like Sanskrit be made optional for a child of eight or nine?

It all arises from a disregard of the first principles of education and a desire—very unwholesome—to do as *much* as possible in a specified period of time instead of as well as possible. This hurry is a characteristic of our age. We see how far advanced European culture is and we wish to push on ourselves. But in our short-sighted ambition we forget the natural laws of mind and matter. The result is we are thrown only more backward still. A rational system of education must take up the whole course of boys' education and adopt a proper curriculum of studies for each class. I sometimes wonder, when I think of the amount of scholarship expected from the third standard what the boys had to learn at that rate for eight years more—the time necessary for completing the school course? Nevertheless, I do not find the pupils that come into my hands in the college classes any the better—rated for the worse—for this hot-bed growth in the primary and lower secondary courses.

The next defect I note is somewhat allied to the first one. It is requiring a knowledge of various branches of subjects from young boys. History and Geography, those two notoriously badly taught subjects—and I should say ill-understood subjects—are taken up as early as in the 2nd standard. As though this were not enough, Hygiene is also

taught. Of course the principles of hygiene, the properties of familiar matter, simple historical and geographical conceptions should form part of any rational system of education. But what I object to is not their introduction in the Primary course but the form in which they are introduced there. I object to separate hand-books on these subjects got up by ignorant Inspecting Schoolmasters or ex-Inspecting Schoolmasters—who alone find it profitable, (to them at all events) to trade in these low stalls of learning:—these hand-books aim at a pedantic entirity and completeness and betray an utter want of grasp of what ought to be taught. Is it not much better that scientific, historical, geographical and other lessons, giving elementary ideas concerning them, are introduced in the body of the Reading lessons themselves interspersed amidst other things, so that the mind may take in such notions slowly and *un*systematically. Though in higher branches of learning systematic courses are wanted, early in school life, want of system helps the mind in mastering things. System requires a tension of the mind which the young cannot have. Even for the old, some desultory reading is often very wholesome. Instead of this, my primary school geographer begins his little book with the solar system and the law of gravitation. The Inspector examines the urchins on the 'planets seven' and their 'dance about the sun'. The historian of the Primary school begins with the Vedic period and tells learnedly to the young all the distinction between Mantra and Upanishad; Samhita and Brahmana; then comes a piece of historical critisism on the credibility of Ramayana and the Bharata; then the social condition of the Hindus at the time when Manu wrote. Then comes the inevitable Buddhism and its doctrines and its councils. In no class I find more than one or two real idiots. The majority of boys are sharp enough, witty and docile enough. But if 30 per cent. of them satisfy the examiner, we think that the teacher is absolved. But he ought to have fitted up 99 per cent. of them. The thirty per cent. in fact, make themselves fit in spite of their teacher and his teaching.

The third defect is over much home-task exacted from young boys. Even the ordinary school course extending over five hours a day is a strain on the young boy that learns, but to exact from him home-work also is to make him a drudge. Again, we know the means and furniture for writing possessed by an ordinary Hindu boy: his home-work makes him sit in all postures and cramp his body and twist it for want of a good desk to write on. Above all, this intrusion of school work out of school hours tends to take away what little love of sport there is in the Hindu mind and deteriorate his body. If only all the 5 hours a boy spends inside the four walls of a school, be properly utilised, no out-of-

class study is necessary in the primary grade. Preparation of school work is unreasonable to be expected from boys of ten and twelve. In the upper secondary and collegiate courses alone preparation could be had. But within school hours all provision must be made for exercises in writing, reading, learning up, and so forth.

Another defect is allowing boys to scribble out their sums and other things on bits of paper or note books. Thus the tendency to scribble starts up ahead of the training to write well and slipshod writing is the result. Boys must use their slates for a long time—even to the end of the Upper Secondary course. Writing on the slate helps to form a good hand. But using the pencil or pen for suiting the small hand so early spoils all good writing. The only writing on paper that ought to be had in the primary course is "copy writing" in printed copy books.

There is a fifth defect which consists in making the standard boys use English school books for Arithmetic. The boys cannot understand the sums, and the teacher, instead of making them understand them and then find out the arithmetical processes to be employed themselves, gives the processes to be employed—as multiply by this and divide by that, and so forth. This is a very bad system. Why not translate good English books and put them into the boys' hands in the vernacular? The hazy notions of words which boys begin to get under this system are not forgotten even when they grow old.

The last defect I wish to point out now is the absence of any attempt to enforce a wholesome principle of discipline in the minds of the young. The rod is, indeed, there on the headmaster's table—nay, even on the table of every master in many schools and its havocs are patent enough. It alone is the embodiment of the principle of discipline in the school. But will not it be better preserved by habituating the boys to 'drill'. Drill is a very wholesome thing. The movements it gives rise to not only give graceful exercise to the body but present such beautiful convolutions and evolutions that the boys themselves will take an interest in it. It will also teach the habit of implicit obedience to commands—a trait to be acquired by every one who is to lead a useful life.

Now in some schools the gymnastic instructor does it once a week probably: but drill must not be considered as a formality to be gone through; but an essential institution to secure some very desirable ends. It ought to be given at least one period every day from the time allotted to the class work. If only a course of progressive drilling be carried on from the primary classes on into the upper secondary course, I am sure the character of our public school boys would materially become better.

They can also have sufficient exercise to the body—perhaps more exercise than all the costly gymnastic apparatuses can give them. If only a spacious shed be erected in the compound of each school, classes after classes can be taken to the drill ground at all times in the day and these movements will come as a delightful relief from monotonous teaching in the same place : both the teacher and the taught will feel the better for this diversion.

To sum up : I wish to devote all the five years of primary schooling to the learning up of the vernacular of the locality alone and the elementary principles of its grammar taught in a rational way. In the first three courses only the three *R.*'s are to be taught : all useful information must be put in the Readers of the classes themselves. In the two highest classes of course some history might be learnt in an integral manner. But about this subject much more must be said than there is room for now. In all classes, not only of the primary school, up to the collegiate course, military drill should be systematically taught for one period every day to give a tone of obedience and sobriety to the school as a whole. These only relate to external matters and if these are properly looked after, even the primary want of competent masters may be in a manner covered. Only the headmaster at least must be a thorough scholar, an enthusiastic teacher, well-informed as to the principles and methods of teaching and above all must be a man of ideas. He must be had at all cost.

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9. Rev. J. M. Russell, M.A.; 10. Rao. Bahadur S. Seshaiya, B.A.; 11. J. G. Tait, Esq., M.A.

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Assistant Examiners.—1. A.E. Adolphus, Esq., B.A.; 2. Miss E. Carr; 3. I. Daniel, Esq., B.A.; 4. F. S. Davis, Esq., B.A.; 5. S. P. D'Sylva, Esq., B.A.; 6. H. S. Duncan, Esq., M.A.; 7. Mr. D. A. Hobday, B.A.; 8. M.R.Ry. K. Krishnamachariyar, B.A.; 9. M.R.Ry. R. Krishna Aiyar, B.A.; 10. M.R.Ry. C. T. Parthasarathi Mudaliyar, B.A., L.T.; 11. Rev. J. S. Peter, B.A., L.T.; 12. M.R.Ry. S. V. Rangaswami Aiyangar, B.A.; 13. R. Shubrick, Esq.

SANSKRIT.

Examiners.—1. M.R.Ry. M. Seshagiri Sastriyar Avgl., M.A. (*Chairman*); 2. E. Hultzsch, Esq., PH.D.; 3. M.R.Ry. R. Krishnamachariyar M.A.; 4. M.R.Ry. A. Mahadeva Aiyar, B.A.; 5. M.R.Ry. M. Narayana Sastriyar, M.A.; 6. M.R.Ry. R. Rajaraja Varma Koil Tampuram, M.A.

GREEK AND LATIN.

Examiners.—1. Rev. A. Jean, B.A., S.J., D.D. (*Chairman*); 2. Rev. C. H. Monahan, B.A.; 3. Rev. A. Westcott, M.A.

ARABIC, PERSIAN AND HINDUSTANI.

Examiners.—1. Rev. E. Sell, B.D. (*Chairman*); 2. W. J. Prendergast, Esq.; 3. Shamsulalama Hafiz Muhammad Latfulla Sahib; 4. Syed Hussain Bilgrami, Esq., B.A.

MARATHI.

Examiners.—1. Mr. H. B. Atre, B.A. (*Chairman*); 2. M.R.Ry. T. R. Malkari Rau Avgl.

TAMIL.

Examiners.—1. M.R.Ry. T. Balasundara Mudaliyar (*Chairman*); 2. M.R.Ry. V. Kanakasabhai Avgl., B.A., B.L.; 3. Rev. J. Lazarus, B.A.; 4. M.R.Ry. S. Narayanaswami Aiyar, B.A.; 5. M.R.Ry. S. Radhakrishna Aiyar Avgl., B.A.; 6. M.R.Ry. P. S. Annachariyar, B.A.

Assistant Examiners.—1. M.R.Ry. T. Chelvakesavaraya Mudaliyar, M.A.; 2. M.R.Ry. K. Ganapati Aiyar, B.A., L.T.; 3. M.R.Ry. T. T. Kanakasundaram Pillai, B.A.; 4. M.R.Ry. M. Singaravelu Mudaliyar Avgl., B.A.; 5. M.R.Ry. V. S. Swaminatha Dikshitar, B.A., L.T.; 6. M.R.Ry. V. Venkaiya, M.A.

TELUGU.

Examiners.—1. M.R.Ry. S. Rangaiya Chetti Garu, B.A. (*Chairman*); 2. M.R.Ry. N. Jaladurgaprasadarayudu Garu, B.A.; 3. S. Purnapragna Rau, M.A.; 4. M.R.Ry. J. Ramaiya Garu, B.A., B.L.; 5. M.R.Ry. K. Viresalingam Pantulu, Rao Bahadur.

KANARESE.

Examiners.—1. M.R.Ry. M. Rangachariyar Avgl., M.A. (*Chairman*); 2. M.R.Ry. U. Krishnaiya Avgl., B.A.; 3. M.R.Ry. R. A. Narasimhachariyar, M.A.; 4. M.R.Ry. H. Narayana Rau Agvl., B.A., B.L.

MALAYALAM.

Examiners.—1. M.R.Ry. K. P. Sankara Menon Avgl., B.A., B.L. (*Chairman*); 2. M.R.Ry. M. Ravi Varma Raja Avgl., M.A.; 3. M.R.Ry. M. C. Kannan Nambiyar, B.A.; 4. M.R.Ry. C. Damodaram Namburipad.

URIYA.

Examiners.—1. Baba B. C. Chatterjea (*Chairman*); 2. Baba Sasi Bhushan Palit, B.A.

FRENCH.

Examiners.—1. Rev. E. de Noircourt, B.A. (*Chairman*); 2. E. de Rozario, Esq.

BURMESE.

Examiners.—1. J. Vansomeren Pope, Esq., M.A.; 2. A. W. Lonsdale, Esq.

MATHEMATICS.

Examiners.—1. M.R.Ry. B. Hanumanta Rau Avgl., B.A. (*Chairman*); 2. A. Y. G. Campbell, Esq., I.C.S.; 3. Rev. H. Du Ranquet, PH.D., S.J.; 4. H. Malim, Esq., B.A.; 5. E. W. Middlemast, Esq., M.A.; 6. A. C. Mitchell, Esq., D.Sc.; 7. W.B. Morren, Esq., M.A.; 8. M.R.Ry. R. Swaminatha Aiyar Avgl., B.A.

Assistant Examiners.—1. Rev. J. Baizini, S.J., D.D.; 2. A. W. Bion, Esq.; 3. M.R.Ry. M. A. Parthasarathi Aiyangar, Avgl., B.A., B.L.; 4. M.R.Ry. W. R. Parthasarathi Aiyangar, B.A.; 5. M.R.Ry. R. Ramachandra Rau Avgl., B.A.; 6. M.R.Ry. V. Ramaswami Aiyar Avgl., M.A.; 7. M.R.Ry. T. Sankara Rau Avgl., B.A.; 8. M.R.Ry. R. V. Subrahmanya Aiyar, B.C.E., L.T.; 9. M.R.Ry. S. Subrahmanya Aiyar, B.A.; 10. M.R.Ry. V. R. Venkatarama Aiyar, B.A., L.T.

PHYSICS, CHEMISTRY AND PHYSIOGRAPHY.

Examiners.—1. W. H. Wilson, Esq., PH.D. (*Chairman*); 2. A. W. Bishop, Esq., PH.D.; 3. J. Cook, Esq., M.A.; 4. R. Ll. Jones, Esq., M.A.; 5. M.R.Ry. A. Ramalinga Aiyar Avgl, M.A.; 6. A. Moffat, Esq., M.A., B.Sc.; 7. Surg.-Major J. L. VanGeyzel, M.B.

Assistant Examiners.—1. M.R.Ry. P. Aiyasawmi Mudaliyar Avgl. M.A., B.L.; 2. M.R.Ry. M.C. Nanjunda Rau Avgl., B.A., M.B. & C.M.; 3. M.R.Ry. P. Rajagopala Aiyar, M.A.; 4. M.R.Ry. V. S. Sambasiva Aiyar, B.Sc., L.C.E.; 5. V. J. Staggs, Esq.; 6. M.R.Ry. C. M. Vijayaraghava Chariyar, B.A.

GENERAL BIOLOGY.

Examiners.—1. A. G. Bourne, Esq., D.Sc., F.R.S., (*Chairman*) 2. S. H. Reynolds, Esq., B.A.

BOTANY.

Examiners.—1. A. G. Bourne, Esq., D.Sc., F. R. S. (*Chairman*); 2. J. Cameron, Esq.; 3. R. Hollingsworth, Esq.

PHYSIOLOGY AND ZOOLOGY.

Examiners.—1. A. G. Bourne, Esq., D. Sc., F. R. S. (*Chairman*); 2. Surg.-Major T. H. Pope, M.D., B.Sc.; 3. S. H. Reynolds, Esq., B.A.

Assistant Examiners.—1. J. W. Delaney, Esq.; 2. M.R.Ry. K. Rangachariyar, M.A.

GEOLOGY AND PALÆONTOLOGY.

Examiners.—1. R. B. Foote, Esq. (*Chairman*); 2. J. W. Evans, Esq., D.Sc., LL.B.

PSYCHOLOGY, LOGIC AND ETHICS.

Examiners.—1. Rev. C. Cooper, M.A. (*Chairman*); 2. Rev. J. Castets, B.A., PH.D.; 3. M.R.Ry. S. Satyanathan Avgl., M.A., LL.M.; 4. Rev. W. Skinner, M.A.; 5. M.R.Ry. R. V. Srinivasa Aiyar Avgl., B.A.; 6. M.R.Ry. K. Sundararama Aiyar Avgl., M.A.

GEOGRAPHY, ETHNOLOGY, HISTORY, &c.

Examiners.—1. Rev. F. W. Kellett, M.A. (*Chairman*); 2. H. J. Allen, Esq., M.A.; 3. E. Hultzsch, Esq., PH.D. (*for Numismatics only*); 4. R. S. Lepper, Esq., M.A.; 5. Rev. A. Maffei, S.J., D.D.; 6. C. Morrison, Esq.; 7. R. A. Nelson, Esq., B.A., LL.B.; 8. P. H. Sturge, Esq., M.A.

Assistant Examiners.—1. M.R.Ry. K.N. Aiyar Avargal, B.A., B.L.; 2. Miss A. Arnold; 3. Mr. J. W. Coombes, B.A., L.T.; 4. M.R.Ry. P. S. Ganapati Aiyar Avgl., B.A.; 5. M.R.Ry. P. Nagabhushanam Avgl., M.A., B.L.; 6. M.R.Ry. K. Ramanujachariyar, B.A.; 7. M.R.Ry. M. Ramaswami Aiyangar, B.A., L.T.; 8. M.R.Ry. T. V. Sivakumara Sastriyar, B.A.; 9. M.R.Ry. P. T. Srinivas Aiyangar Avgl., M.A.; 10. M.R.Ry. S. Subrahmanya Sastriyar, B.A.

TEACHING.

Examiners.—1. C. A. Paterson, Esq., M.A., LL.B. (*Chairman*); 2. R. Ll. Jones, Esq., M.A. (*Practical only*); 3. R.S. Lepper, Esq., M.A; 4. T. T. Logan, Esq., B.A. (*Practical only*); 5. J. Paterson, Esq., M.A.;

6. M.R.Ry. M. Ramaswami Aiyangar, B.A. (*Practical only*); 7. M.R.Ry. N. Vaidyanatha Aiyar Avgl., M.A.

LAW—M.L.

Examiners.—1. Kenworthy Brown, Esq., M.A. (*Chairman*); 2. R.A. Nelson, Esq., B.A., LL.B; 3. Dewan Bahadur C. Ramachandra Rau Sahib, B.L.

F.L. AND B.L.

Examiners.—1. Dewan Bahadur C. Ramachandra Rau Sahib, B.L. (*Chairman*); 2. James H. Bakewell, Esq., LL. B.; 3. Rao Bahadur The Hon'ble C. Jambulingam Mudaliyar, B.A., M.L.; 4. M.R.Ry. M. O. Parthasarathi Aiyangar, Avgl., M.A., M.L.; 5. J. H. M. Ryan, Esq.; 6. P. Sivaswami Aiyar Avgl., B.A., B.L.

MEDICINE.

Examiners.—1. Surg.-Lieut.-Col. H. Allison, M.D. (*Chairman*); 2. A. G. Bourne, Esq., D.Sc., F.R.S.; 3. J. Nield Cook, Esq.; 4. Surg.-Capt. F. J. Crawford, M.D.; 5. R. Hollingsworth, Esq.; 6. Surg.-Lieut.-Col. J. Maitland, M.D.; 7. Surg.-Major T. H. Pope, M.D., B.Sc.; 8. Brigade-Surg.-Lieut.-Col. W. Price, M.D.; 9. M.R.Ry. H. Rangappa Avgl., B.A., M.B. & C.M.; 10. Surg.-Capt. R. Robertson, M.B.; 11. Surg.-Capt. D. Simpson, M.B.; 12. Surg.-Lieut.-Col. A. J. Sturmer,; 13. Surg.-Major C. M. Thompson, M.B.; 14. Surg.-Major J. L. VanGeyzel, M.B.

ENGINEERING.

Examiners.—1. H. J. Thompson, Esq. (*Chairman*); 2. R. E. Ellis, Esq.; 3. M.R.Ry. R. Krishnan Nayar, B.A., B.C.E.; 4. Lieut.-Col. A. W. Smart, R.E.; 5. A. B. Strange, Esq.

EDUCATIONAL NOTES.

At the prize distribution of the Royal Indian Engineering College, Cooper's Hill, Egham, held on the 28th July 1897, Lord George Hamilton Colonel Pennycuick, President of the College, gave a short record of the year's work. He mentioned that the College that day completed its twenty-sixth session. At its commencement the number of students in residence was 122. There were thirty-five leaving that day; all of whom had obtained the College diploma. Of these thirteen were entering the Engineering branch of the Indian Public Works Department, two the Accounts branch of the same Department, two the Traffic Department of the State Railways, three joined the Telegraph Depart-

ment, and five the Forest Dtpartment, making tweaty-five in all who entered the service of the Government of India. For the remainder suitable employment had been found in other directions.

Lord George Hamilton then distributed the prizes. The following were the chief prize-winners:—W. H. Gelling, scholarship for natural science (three years' work); A Lines, Fellow's scholarship (for the whole third year's course); E. D. Cockburn, scholarship in applied mechanics (for the work of the second and third years); V. T. Janson, foundation scholarship in engineering (for the work of two years); R. H. Aserappa, scholarship in mathematics (for the work of two years); A. J. Gibson, scholarship in the forest course (for the work of two years); and W. H. Field, foundation scholarship (for the whole first year's course).

* * *

It is under contemplation to establish a separate University for women at Osaka (in Japan), the two Universities at present in Japan being exclusively set apart for men.

* * *

Mr. Lee Hamilton has made a new translation of Dante's "Inferno" and it will be published by Mr. Grant Richards.

* * *

The beacon erected on High Down, Freshwater, in memory of Lord Tennyson, was unveiled on the 6th August (the late Laureate's birthday) by the Dean of Westminster. A considerable proportion of the subscription for the beacon came from America.

* * *

A book entitled "The Siege of Delhi in the Indian Mutiny" wil shortly be published by Messrs. A. Constable and Co., the author of the work being Col. H. N. Vibart.

* * *

The Senate of the London University has at last moved in the direction of ceasing to hold its examinations in the colonies, which are provided with Universities, and in India, which boasts of five such academic establishments. The London University examinations were instituted in 1865 for the convenience of the Gilchrist Trust, the purposes of which they now no longer serve. The total number of candidates in ten years has been only 671; of this number but 40 were for Intermediate Arts and Laws and but 12 obtained a degree. It will thus be seen that the aim and object of the successful candidates was simply to pass the London University and to stop after that. This procedure is quite in consonance with Indian ideas but it probably strikes the Senate of the London University as unlikely to encourage academic ambition. The Senate also considers the educational value of its Colonial examinations

as very small considering that two-thirds of the candidates failed. No doubt once upon a time these examinations encouraged education in India, but latterly they degenerated into being a refuge for the destitute. When one heard of a student in India preparing for the London Matriculation one got the impression that for some reason he felt himself unable to pass the examinations of the University of his Province and thought he would fare better with examiners, who were resident 6,000 miles away. Usually he was doomed to disappointment, as the London Matriculation is by no means an easy test. While every one must regret the severance of a tie between the academic life of London and that of India, it must be confessed that the time has arrived when the utility of holding the Colonial examinations in connection of the London University has ceased to be apparent.

INDIAN NEWS.

BOMBAY.

We regret to record the death of that successful educationist Mr. Wamanrao Modak, late Principal of the Elphinstone High School.

* * *

The Vice-Chancellor of the Bombay University conferred degrees on the 30th ultimo on such of the graduates of the University as were not present on the day of the annual convocation on account of the plague.

* * *

On the motion of Mr. R. M. Patel, the Senate resolved to change the date of paying University School Final fees, the last date for sending in the " forms " having been altered to the second Monday in October.

* * *

The Senate of the Bombay University has accepted with the best thanks the offer of Rs. 6,000 in $3\frac{1}{2}$ per cent. Government paper from Khan Bahadur Dorabji Padamji and Dr. A. W. Thomson, C.E., Honorary Secretaries, Dr. Theodore Cooke Memorial Committee, for the foundation of a prize in Dr. Cooke's name to be awarded biennially for the best essay on some engineering subject.

The following regulations were adopted for awarding the Prize:—

1. The Prize to be called the Dr. Theodore Cooke Memorial Prize of the value of Rs. 399 shall be awarded every alternate year for the best essay on some subject connected with engineering.

2. Competitors shall be Graduates in Engineering of the University of Bombay, of not more than seven years' standing from the date of their graduation, on the day prescribed for sending in the Essays.

3. The subject of the Essay shall be—

(*a*) an engineering work of importance on which the candidate has been actually engaged ;

(*b*) or an engineering subject in which the candidate has made some original discovery or experiments ;

(*c*) or an engineering subject selected by the Syndicate, and notified not less than two years before the day prescribed for sending in the Essays.

4. Each Essay shall be written in English, and shall not contain more than 5,000 words.

5. Each Essay shall be sent in to the University Registrar on or before 1st August of every alternate year beginning 1899.

6. Each Essay shall be signed by the writer, and shall be accompanied by a statement giving his University standing and a declaration that the Essay sent in by him is *bonâ fide* his own composition.

7. If the subject of the Essay is (see Rule 3) an engineering work of importance on which the candidate has been actually engaged, the dates between which, and the names of the officers under whom he served on the work, and the duties assigned to him shall be stated.

If the subject of the Essay is one in which the candidate has made some original discovery or experiments, the place at which, and the dates between which the experiments were made should be stated ; and if required by the Judges the instruments by means of which the experiments were made should be exhibited to them.

8. The Judges shall be two in number, and shall be nominated by the Syndicate. Their decision shall be final and shall be announced on or about the 15th October.

9. The Essay for which the Prize is awarded shall become the property of the University Library.

10. The Prize shall not be awarded unless the Judges pronounce an Essay worthy of it.

11. The annual income of the Fund shall be subject to a deduction of 5 per cent. to be contributed to the General Fund of the University.

12. On the occasions when the Prize is not awarded, the money shall be applied by the Syndicate in such manner as they think best fitted for furthering the object of the Endowment.

13. The Senate shall have the power, whenever it may think fit, to modify or alter the terms upon which the Prize is awarded ; or otherwise to deal with the income of the Fund, provided the object for which the Prize has been founded is kept in view.

MADRAS.

The Hon'ble Sir Arthur John Hammond Collins, *Kt.*, Q.C., Chief Justice of the High Court of Judicature, has been re-appointed Vice-Chancellor of the Madras University.

* * *

Government has decided that the following classes of menial servants in the Educational Department are not eligible for pension:—Night-peons; Mashalchis; Conductresses; Gardeners; Water-brahmans; Water-carriers; Watermen; Water-women; Punkah-pullers; Scavengers, and Sweepers on less than Rs. 4 per mensem.

* * *

Government has ordered that, in future, its special permission should be obtained before a Government servant accepts the offer of an examinership from the University and receives remuneration for services rendered as an examiner. In the case of officers whose salary is less than Rs. 100 per mensem, the Head of the Department may grant the required sanction.

* * *

The Director of Public Instruction, Madras, has issued the following notice regarding Registration of Qualified Teachers and Renewal of Teachers' Certificates.

(1) As it is under contemplation to open a Register of Teachers in this Presidency, who are qualified under the Madras Educational Rules for the profession of teaching, and to issue to them, in lieu of the certificates already granted, new certificates, bearing serial register numbers and classified according to grades, managers and heads of institutions are hereby requested to be so good as to instruct all teachers who are now on their staff, or who may hereafter be appointed thereto, to deliver *in original* such certificates as they may possess to the Inspecting officers of the department at the time of their next inspection, or, if the annual inspection has already taken place, to despatch the certificates under registered covers to the Inspecting officers before 31st December next. Certified copies of the original certificates will, if required, be furnished by the Inspecting officers. The original certificates of teachers in institutions not visited by the Inspecting officers should be forwarded to the Director not later than 31st January next.

(2) Teachers who have lost their original teachers' certificates should be required to apply to this office for authorized copies thereof. Applications for such renewals should give particulars as to the date

and contents of the missing certificates, and should also be accompanied by a treasury receipt acknowledging payment of the renewal fee of Rs. 2.

(3) Teachers who are unable to produce their certificates or authorized copies thereof will not be considered as qualified teachers for purposes of recognition or aid.

* * *

The members of the Dramatic Society attached to the St. Joseph's College, Trichinopoly, gave a very successful performance of "King John" on the 21st ultimo in the presence of a large audience, among whom was the Collector of the District.

* * *

At the annual meeting of the Senate of the Madras University held on the 27th ultimo, the Hon'ble Dr. Duncan was elected President of the Faculty of Arts; Mr. Justice Shephard of Law; Dr. Sibthorpe, the Surgeon-General, of Medicine; and Mr. H. C. West, Agent and Manager of the Madras Railway, of Engineering. Dr. Duncan, Mr. Justice Subramania Iyer, Mr. Michie Smith, Mr. G. H. Stuart, and Mr. J. B. Bilderbeck were elected Syndics in Arts; the Hon'ble Mr. Sankaran Nair, Dr. Browne and Major Love were elected Syndics in Law, Medicine and Engineering, respectively.

* * *

Applications for admission to the written test of the Teachers' Certificate Examination to be held on the 8th and 9th December 1897 should reach the Secretary to the Board of Examiners on or before the 30th instant.

* * *

The following figures are taken from the report of the S. P. G. College, Trichinopoly, which held its prize distribution on the 28th ultimo under the presidency of the District Collector, Mr. Bannatyne Macleod, M.A.:—"There were at the end of the year under review 163 students in the College, as against 148 in 1895, 496 in the High School, as against 476, and 746 in the Primary Schools, as against 730 in the previous year. The examination results were distinctly satisfactory on the whole, showing in the College a higher percentage than in the previous year in all branches except in the B.A. English language division and in Physical Science."

* * *

Out of 54 candidates that appeared for the Mysore Civil Service Examination, 10 have passed, of whom 4 will be chosen for vacancies in the Provincial Service.

* * *

At the thirteenth Anniversary of the Coimbatore Student's Literary Association held in the College Hall on the 25th ultimo under

idency of [illegible] Mackenzie, Esq., I. C. S., Mr. C. M. Barrow, of the Victoria College, Palghaut, delivered a very interesting [illegible]ive lecture on "The British Empire," illustrating the same [illegible] specially prepared for the purpose.

* * *

[illegible]fty-first anniversary of Pachaiyappa's High School, Conjee-[illegible]as celebrated in the school hall at 4 P.M. on 1st August 1897, [illegible] Hon. Mr. C. Sankara Nair, B.A., B.L., in the chair. The [illegible] compound and the walls were decorated with flags and bunting, evergreens and flowers. An ornamental 'welcome' was erected over the gateway. The pupils of the school and their parents and other gentlemen of the town were present. The graduate teachers of the school appeared in their academicals. The usual report was read by the Headmaster. The prizes were given away by the Chairman. Three students of the sixth form recited extracts from Macaulay, Burke and Shakespeare, which was much appreciated by the audience. Poems composed in Tamil and Sanscrit by the school pundits in honour of Pachaiyappa were recited and explained. The Chairman then spoke to the boys and addressed the public also on their duties to their national institution. He announced the kind offer of a silver medal for excellence in mathematics by M.R.Ry. R. Kasi Visvanatha Moodeliar, son of the late M.R.Ry. R. Shunmuga Moodeliar, the wellknown snuff-merchant of Madras. The meeting closed with a vote of thanks to the Chairman. It may be added that, since the anniversary, M.R.Ry. V. Damodara Moodeliar, Tahsildar of Conjeeveram, has kindly offered a prize to the best gymnast of the school.

* * *

According to a requisition made by Mr. Krishna Iyer, Inspecting School Master, a large meeting was convened in the C. M. S. Primary School, Srivelliputur, for the purpose of organising a Teachers Association, at which more than twenty five teachers from the several schools of the Municipality, including the High, Middle and Primary Departments, were present. Mr. Krishna Iyer was unanimously voted to the chair. Messrs. Srinivasa Iyengar, V. R. Hariharan, B.A., and Krishnaswami Row spoke at length about the usefulness and necessity of such an institution. Messrs. Periyanayagam, B.A., Srinivasa Iyengar, V. R. Hariharan B. A., and Vallinayagam Pillai, were chosen as President, Vice-President, Secretary, and Treasurer, respectively. Meetings will be held every Amavasai day at 4 P.M., when papers on Methods of Teaching will be read or criticism lessons will be given.

* * *

It having been brought to the notice of the Syndicate that the present University seal was inadequate both as to material and as to

design, the Registrar was instructed to apply to the Herald's ... for the grant of a coat of arms for the University. The application ... been granted and it is expected that the patent from the ... will shortly be received.

* * *

There is now on view in the museum attached to the School ... an elaborately carved blackwood (rosewood) Drawing Room ... measuring 7′ 5″ × 4′ × 1′ 10″ as designed and executed in that ... The Cabniet is intended for the use of the Bombay School of Arts as a model of the excellent wood carving of Madras. The design of the carving is purely Indian; and much of it is of the perforated kind, executed without the help of the fret-saw. The cabinet is decorated by panels of chased copper, specimens of the celebrated Tanjore work which is considered the finest in India. Lacquered panels and chased brass handles for the drawers are additional decorations all designed and executed in the school. The carving and chased work in the cabinet which represent finished results as achieved with simple implements and by means of arduous tasks, illustrate the simplicity in the mode of production which characterises Indian Arts.

* * *

M.R.Ry. B. Hanumantha Rau Avl, Professor of Mathematics, Civil Engineering College, Madras, has privilege leave for two months and twenty-five days from or after the 6th September 1897.

* * *

The strength of the Madras School of Arts during the past quinquennium ending 31st March 1897 advanced so much so that there were on the rolls of the school on the 31st March 1897, 633 students (200 apprentices, 1 stipendiary scholar and 432 general students) as against 426 (164 apprentices, 12 stipendiary scholars and 250 general students) on the 31st March 1892. More than 90 per cent. of the students belonged to the town of Madras.

* * *

Nearly one-sixth of the number of students in the Madras Law College on the 31st March, 1897, belonged to the Tanjore District. Madras, Mysore and Malabar stand second, third and fourth respectively as regards the number represented by them in the college.

* * *

The net income to Government from the Law College in the past official year was Rs. 23,210.

* * *

The Principal of the Teachers' College, Saidapet, has notified that a number of trained students of all grades will finish their training course in

the college, and in the Pauchama Branch Training School, Madras, in December next and be available for work in January, 1898.

* * *

An appeal has been issued to the public of Madras for subscriptions in aid of the Pitman Memorial Fund.

* * *

The following figures represent the number of books printed in the Madras Presidency during the months of April, May and June 1897:— [illegible] 5; Language 29; Poetry 26; Miscellaneous 11; Drama 8; His[illegible]; Natural science 7; Friction 6; Medicine 4; Mathematics 4; Biography 4; Law [illegible]; Art 1; Total 165.

They were written in different languages as shown below—Telugu 58; English 34; Tamil 33; Sanskrit 26; Malayalam 6; Kanarese 6; Hindustani 1; Italian 1.

The Italian book is a biography of P. Joseph Vaz, of Goa, a Roman Catholic priest of the Congregation Oratorio who, after finishing his course of training, went down south and became the Apostle of Ceylon.

The number of peridicals and journals published is represented by 39, of which only two were purely Educational, the Educational Review and the Indian Journal of Education.

REVIEWS OF BOOKS.

A Holiday Trip to Europe and America. By S. Satthianadhan, M.A., LL.M. (*Cantab*), Professor of Logic and Moral Philosophy, Presidency College, Madras. Madras. *Srinivasa, Varadachari and Co.*

When a Professor of Logic and Moral Philosophy, who is in addition a prominent member of the Native Christian community, writes a description of a holiday trip, the reader expects something pondrous, but anyone perusing Mr. Satthianadhan's little book will be agreeably disappointed, for even the most ordinary mortal can go through its pages with pleasure. The author commences his little book with a graphic description of a storm at sea (with its usual highly unpleasant accompaniment) and in the first four chapters describes his progress to London *viâ* Brindisi and the Continent. Having been educated in Europe he does not treat his reader to any of those "green" observations, which so frequently are recorded by Indian travellers on their virgin trips to the West. He describes things and men, as they struck him, and herein lies the great charm of his writings. Chapter V. is devoted to "Indian Students in England" and will, we imagine, be

skipped by the ordinary reader. Chapters VI.—VIII. show us Mr. Satthianadhan in London, enjoying the sights of the metropolis, and studying the English character. The next six chapters display him roaming over America. Many writers must by now have given their experiences of the New World to the public, but it is probable that Mr. Satthianadhan can hold his own as the describer of a tour in Yankeeland. His account of his doings at, and his impressions of, Niagara will, in sporting language, "take a good deal of beating." Chapter XV. gives us the Professor once more in England, visiting, among other places, his *alma mater*, Cambridge. It is the four concluding chapters of the book, however, which show the author as a keen observer of men and things. His position in Mission circles in India secured him the *entrée* into certain societies at Paris, Copenhagen and other places and he has taken full advantage of his opportunities of giving us pictures of the life in good middle class homes at these places. It is to be hoped that such an extremely interesting work, as Mr. Satthianadhan has brought out, will receive the wide circulation it deserves.

A COURSE OF PRACTICAL CHEMISTRY. PART I, ELEMENTARY. By M. M. Pattison Muir M. A. *Longmans, Green & Co.*, London, New York and Bombay. Price 4*s*. 6*d*.

On the title-page we are told that the course of Practical Chemistry, dealt with, is an *elementary* one, but we feel sure that in India no one would so regard it. Section I. contains a large number of experiments with detailed instructions as to how they should be performed. This portion is evidently meant for students, but in this country the majority of teachers will have much to learn from it. The author has had twenty-five years experience in laboratory teaching and his methods are therefore entitled to receive every attention. Section II is devoted to volumetric analysis, which for some unknown reason has found but little favour in this country. Section III deals with qualitative analysis—detection of single metals, detection of metals when not more than a single metal is present in any one group, detection of the commoner acidic radicles and examination of solids by dry tests. We have given the exact scope of this section as it is the one which will chiefly interest Indian students. A useful set of appendices is given—making apparatus; tables; reagents; preparation of standard solutions. The book is very well got up and clearly printed.

We have to acknowledge with thanks the receipt of the following books from Messrs. Blackie and Son, Limited, 50, Old Bailey, London.

1. No VI of the Raleigh History Readers. The Reign of Queen Victoria. By J. H. Rose M. A. Price 1*s.* 9*d.*

This work, which is profusely illustrated and is provided with a number of useful maps, is a complete history of the reign of Queen Victoria, written for the use of boys. The author says it has been written "specially with the object of giving prominence to the deeds and characters of the great men of our own and of former times, who have built up the British Empire," and he adds that "an effort has been made both in the text and in the maps and plans, supplied, to give the young reader some idea of the great change in the extent of the empire, the great improvements in the condition of its population, and the great development of its wealth and material resources, that have taken place since the beginning of the Queen's reign." In all these particulars Mr. Rose has been successful, so much so that persons, who have long left boyhood behind, can peruse his little book with pleasure and benefit.

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2. Samson Agonistes. Edited by Edmund K. Chambers.

3. Paradise Lost Book II. Edited by F. Gorse, Price 1*s.*

4. Cæsar's Gallic War. Book IV. By John Brown, M.A. Price 1*s.* 6*d.*

5 and 6. The Palmerston Readers. Sight and Sound Primers. Primer I (4*d*) and Primer II (5*d*).

These little works are meant to teach children reading, by learning not the names and sounds of letters but the common ending of a number of words by repeating it after the teacher. Thus :—at, mat, fat. Ift, lift, sift, gift. The illustrations, some of them coloured, are excellent. The little books are marvels of cheapness.

7, 8 ,9, and 10. The Palmerston Readers. Book I, II, III, and IV. Price :—9*d.*, 10*d.*, 1*s.*, and 1*s.* 4*d.* respectively.—These books are meant to teach the young how to read and are more advanced than the Primers, just noticed. The short stories and poems are admirably fitted for the purpose and as might be imagined a gradation as regards length of words and sentences is maintained throughout. The illustrations, many of them coloured, are excellent. He must be a dull boy indeed, who is disinclined to learn reading from these books. In fact many grown-up persons would derive pleasure from their perusal. The books, like the Primers, are marvels of cheapness.

We have to thank Messrs. William Blackwood and Sons, Edinburgh and London, for sending us two more of the issues of "Ancient Classics

for English Readers," edited by W. Lucas Collins, *viz*:—"Pliny's Letters" by the Revd. Alfred Church and the Revd. W. J. Brodribb, and "Euripides" by William Bodham Donne. Both books fully maintain the high standard to which we have become accustomed in the previous volumes of the series.

PSYCHOLOGY—AN INTRODUCTORY MANUAL FOR THE USE OF STUDENTS. By F. Ryland, M.A., Seventh Edition, 1897. *George Bell and Sons, London.* Price 4*s.* 6*d.*

This book is a revised and largely re-written edition of the author's Psychology, originally published about seventeen years ago. The latter while incorporating to some extent the views of Hamilton and other leading psychologists was in the main an abstract with comments and explanations of Bain's Mental Science, then "the only tolerably complete and systematic treatise on Psychology in English, available for beginners." In the edition under review the author has considerably widened the scope of the work so as to embrace the results of recent investigations in Experimental Psychology, and all important advances that have been made in Mental Science since the first publication of his book, and at the same time to adapt it to meet the requirements of English and Indian Universities. Beginning with an introductory chapter on the scope and method of psychology, he adopts the usual arrangement of the subject devoting successive chapters in order to 'Consciousness,' 'The classification of Mental States,' 'Attention' 'Sensation,' 'The Perception of Objects,' 'The Perception of Space' Memory and Imagination,' 'Thought,' 'Time and Self,' 'Feeling and Emotion', 'Volition'.

The appendices include a bibliography of the subject, and questions selected from London B.A. papers.

The whole subject is covered as well as is needed for an Introductory Manual, and each topic is dealt with in a bright and lucid manner.

Mr. Ryland has laid the best works under contribution and succeeded in producing a really excellent hand-book for biginners. To the students of Indian Universities it will undoubtedly be a valuable help. A preliminary chapter on the structure and functions of nerves and the nervous system, and a brief appendix entering a little more into detail on controversial points that have been but lightly touched on in the body of the work would greatly enchance its usefulness and bring it more into line with the requirements of Indian Universities. We heartily recommend the book as a suitable handbook for students beginning the subject, especially for such as have to read it privately and have not the benefit

of college lectures. The book is printed in clear bold type and excellently got up.

CHILDREN'S WAYS. By James Sully, M.A. LL.D. 1897.
Longmans, Green and Co. London and Bombay.

In this work which is an adaptation of his larger volume, *Studies of Childhood*, to suit the general reader, the author has endeavoured to steer clear of all abstruse discussions and technical language. It is written in his happiest manner and the reader is carried through it, not only by the inherent attractiveness of the subject, but also by the charm of the style. Almost as fascinating as a romance, it is written evidently by one who is himself a lover of children, ever ready to put the most charitable construction on their little sayings and doings, though not with any sacrifice of scientific truth. The stories are strung together in no haphazard fashion, but in such a way as to represent the various aspects of the child-mind in its successive phases of development; and though the work is intended only to please the general reader and has no distinct scientific or psychological aim it is nevertheless likely to prove both delightful and instructive to those who read it. To parents and educators it ought to be especially interesting. The book is printed on excellent paper and in clear type, and is neatly bound.

TEACHING AND ORGANIZATION. Edited by P. A. Barnett, M. A., London. *Longmans. Green and Co.*

The book under review is a thick volume containing a number of Essays on the different subjects that enter into the course of instruction of Secondary Schools in England along with a few other chapters relating to matters of importance as regards the general working of such schools. The authors of these papers are gentlemen who are actually employed in the work of teaching and who, after many years' experience, have became specialists and therefore are entitled to speak with authority on the methods of treating the subjects which they have each written on. Any suggestions they make, are therefore entitled to the earnest attention of everyone connected with educational work. The scope of the book, embracing as it does all matters pertaining to Secondary Schools including nearly all the subjects of instruction, cannot admit of any more than a few pages being allotted, out of a total of about 400 pages, to each of the 23 topics treated of; and within this short compass, it is too much to expect each writer to say all that ought to be said on his subject so as to make the book on the whole a serviceable Manual

in the hands of the teacher. Each of the subjects might take a volume by itself and it is only possible to offer on each, such hints and suggestions, accompanied by occasional typical examples, so as to serve as a guide for the actual teacher to take up and work out in his class-room. Viewed in this light the book is a valuable addition to the pedagogical library, more especially for the reason that it relates to Secondary Schools, the existing treatises on the subject of method confining themselves more or less to the needs of Elementary Schools.

Subjects like the 'Criteria of Education', 'the organization and curriculum' 'specialization' 'the curriculum of girls schools' are not of near interest to the Indian schoolmaster. He is bound by the Grant-in-aid Code and the Educational Rules and is answerable to the executive officers of the Department for the carrying out of the provisions contained therein. The Chapters above referred to discuss the various standards by which we should be guided in arriving at an efficient curriculum and come to the conclusion that whatever is proper and adequate for the needs of schools should be decided by mental science; they consider the problem of 'bifurcation', as to when and where it should begin and how studies should be adapted, whether by alterative courses or by separate lines of study, and arrive at the right conclusion that up to a certain stage of progress, taking the circumstances of the pupils into consideration, bifurcation should not be attempted. They further insist, as is obviously right, that at every stage of progress the three aspects of the child's nature should be harmoniously developed.

The writer on the Kindergarten system strongly recommends the extension of Froebellian principles into the Secondary School. He thinks that the same principles should be applicable all through and that while the practical side is more attended to in the Infant department, the intellectual side should be cared for in the Secondary and strengthened on the lines adopted at the earlier stage.

The paper on "Reading and Speaking" is a short and practical one with a number of examples and rules for the practice of reading and speaking. The author bitterly complains of the state of reading in English schools and recommends the opening of six Reading Colleges to which teachers, selected from the different schools by turns, should be sent to go through a course of three months' training in learning and teaching how to read and speak.

The chapters on 'Writing' 'Form management' 'Furniture' 'Ineffectiveness in teaching' follow the usual routine in treatment and do not contain new points (worth noticing: The chapter on Libraries contains many practical hints for forming and using the library in a school.)

The paper on Mathematics is a learned essay in which the writer, after describing the merits from a disciplinary point of view, dilates on the utility of the subject in reference to the other sciences. As regards Arithmetic, he recommends multiplication from left to right, the adoption of decimal Arithmetic, approximations to the required degree, and the unitary method; of course he does not forget to mention that 'Rule of thumb' should be avoided. Algebra he disposes of in a small paragraph; as regards Geometry, after discussing on the merits of the text of Euclid, he proposes two preparatory stages, the Kindergarten and the Pestalozzian, which are well-worth grounding pupils in and which must render progress easy when they take up the Elements of Euclid which should be studied in the amended form only.

The teaching of English Grammar is described in a pleasant, interesting and practical manner, showing first how the subject should be begun and then introducing gradually the inflexions and the other parts of Grammar. The whole is treated as a number of oral lessons, and a perusal of these pages will be very instructive to the Indian teacher in teaching the Grammar of the mother tongue.

The objects to be kept in view in teaching History are thus given: "We must so teach History as to develop the intelligence, to quicken the powers of attention and observation and reasoning; and we must not rest content, unless we can also point to some definite store added to the treasures of memory." Bearing in mind the two objects, the author prescribes methods of teaching, after dividing the subject into four appropriate stages, in the Preparatory, the Fourth Form, the Fifth Form, and the Sixth Form. Great stress is laid on attentive reading by pupils, the method of questioning, and the frequent use of the black-board. The author's method of promoting attentive reading might be tried. It consists in distributing among the pupils pieces of paper containing a number of questions which would regulate the nature of the reading the pupils should pursue. If the questions are properly prepared, they must make the pupil sit and read up with his mind, for by these questions the attention is directed, there are things to discover and definite answers must be given to them. In the Sixth Form, some lessons are recommended to be given in the form of lectures, the pupils being required to take down notes and elaborate them subsequently into a connected discourse, as this method will prepare the pupils for the later University course.

Science teaching in schools should have the following as its foremost aims—the formation of the habit of observation, the power of steady work and the love of making experiments; and all methods of teaching should

conform to these aims. The first step, therefore, would be a series of Object lessons in Science, which, though slightly unsystematic and short, still promote the aims and stir up the curiosity of children. The author gives a leading place to this course and says: "Our chief aims were to rouse the curiosity, to set up the habit of enquiry, to apply everything as soon as it is learned. Henceforth we shall aim at systematic and well-ordered knowledge." With aims set forth as in the above, the author makes references to the various branches of science indicating how each of them can be made profitable. He has also a just condemnation on the system of examinations in force for testing the knowledge of pupils in science—a system which works very prejudicially with pursuance of the right methods of Science teaching: and he has the satisfaction of seeing science instruction changing control and being placed under the direction of Science and Art Department which has introduced many salutary reforms.

The chapter on Health and Physical culture gives an exhaustive treatment of the subject in its various aspects. It explains the subject in its relation to the teacher, the pupil, the school, the pupil's residence, sleep, diet, &c., and in its relation to mental and moral growth of children. Heads of Day Schools and Boarding Schools will find very valuable suggestions in this chapter.

The remaining chapters on Drawing, Vocal Music, Ancient History, Modern Languages, &c., have not many special points worth noticing. The schools specially concerned with these subjects will find the hints generally useful.

NOTIFICATIONS.

BOMBAY.

The Director of Public Instruction, has kindly sent to us for publication in the Journal the following correspondence and Government Order thereon regarding the disposal of Waste paper in Government offices.

No. 295 A.—1037 of 1897.

Public Works Department.

Bombay Castle,
27th July 1897.

Letter from the Commissioner, Central Division, No. R.—3652, dated 22nd September 1896, as under:—

"In February last, the Collector of Sátára addressed me, asking how the cost of iron bins, of which the use is prescribed in Government

Resolution No. 53 A.-160, dated 1st February 1896, was to be met, as the Collector's contract grant could not possibly bear the burden. He suggested that, unless waste paper could be sold at once, it should be burnt, and the cost of iron bins avoided. I referred the matter to the Chief Engineer, Central Division, asking him what he proposed doing, and pointing out that there are 66 Mámlatdárs' Kacheris in the Central Division alone to say nothing of Huzúr and other offices. I deprecated the supply of iron bins, and suggested the continuance of the present practice. The Chief Engineer replied that, if paper does not accumulate, iron bins are not necessary; but if there is accumulation, cheap bins of corrugated iron could be supplied, probably, at the cost of Government.

"2. I then addressed the Collectors in this Division, with a view to ascertain whether there is a considerable accumulation in each office, and whether iron bins are necessary, and, if so, to what extent. From the replies received, it appears that there is more or less accumulation of waste paper in every Kacheri. The Collectors of Poona and Sholápur state that iron bins will be required in every táluká and Huzúr Kacheri, while the Collector of Nâsik thinks that only Huzúr offices should be provided with iron bins, the accumulation in other Kacheris being thrown into Municipal dust bins, or in places where there is no Municipality, burnt daily. On the other hand, the Collectors of Ahmednagar, Khandesh and Satara, do not think that the bins are necessary. Mr. Charles proposes that waste paper should be burnt every month, and Mr. Cumine thinks that the accumulations should be taken away or burnt daily, while Mr. Winchester states that the present practice in his district is to burn the accumulations, if they cannot be sold more or less immediately, and suggests that the practice should be continued.

"3. In the circumstances stated above, I would enquire whether the use of iron bins should be enforced, and, if so, how their cost is to be met.

"4. My own opinion is that waste paper should be burnt daily by the peons, and the very small profit realised from its sale foregone."

Memorandum from the Revenue Department, No. 3244, dated 29th April 1897.

Re-transfers the above papers, together with the reports from the Commissioners of Divisions, and Notes and Minutes thereon, with an intimation that a trial may be given to the suggestion made by the Collector of Dhárwár, referred to in para. 3, as under, of the letter from the Commissioner, Southern Division, No. 1136, dated 23rd March 1897:—

"Para. 3.—I would, however, recommend, for consideration, the suggestion made by Mr. Cappel, the Collector of Dhárwár, that the

Deccan Paper Mills should be invited to tender for the materials, the tender to include a contract for periodical removal. If the Company undertakes to take delivery every fortnight, or at least every month, it does not matter much what amount is actually realised."

Memorandum from the Superintending Engineer, Central Division, No. 4144, dated 2nd June 1897.

With reference to Government memorandum No. M.-54, dated 13th May 1897, states that the Secretaries and Managers of the Deccan Paper Mills Company report that they do not make use of waste paper in their Mills.

Memorandum from the Revenue Department, No. 4748, dated [illegible] June 1897.

Re-transfers the above papers for issue of orders, and offers remarks.

Resolution.—Government consider that it is essential that waste paper should be so disposed of as to reduce the risk of fire from its being allowed to accumulate, to a minimum. For this purpose it should either be collected and burnt daily by the office peons, or stored in iron bins till removed.

2. Where it is probable that the proceeds of the sale of the paper will cover the cost of the bins, the latter course should be adopted.

List of appointments in the Educational Department for the month of August 1897.

10th August 1897.—Mr. K. M. Manskar, 2nd Clerk, Deputy Inspector, Sholapur, to be 2nd clerk, Deputy Inspector, Satara; Mr. G. L. Bhosekar, Clerk and Superintendant, Dhulia Training College, to be 2nd Clerk, Duputy Inspector, Sholapur.

14th August 1897.—Mr. D. S. Dhavale is confirmed as 2nd Clerk to the Deputy Educational Inspector, Kolaba Sub-Division.

17th August 1897.—Mr. N. S. Mahajan is confirmed as 2nd Assistant, Deputy Educational Inspector, Poona Sub-Division; Mr. Shaikh Sirdar is confirmed as 3rd Assistant, Deputy Educational Inspector, Poona Sub-Division.

17th August 1897.—The following appointments are made in consequence of the transfer of Mr. M. D. Advani to the Revenue Department; Mr. D. C. Lakhumalani, B.A., 6th Assistant, N. J. High School, Karachi, and *sub-pro tem* 3rd Assistant, Shikarpur High School, to be 3rd Assistant in the Shikarpur High School; Mr. M. D. Talati, 7th Assistant, N. J. High School Karachi, to be 6th Assistant in the same school; Mr. K. J. Malkani, B. Sc.' 9th Assistant, N. J. High School, Karachi, to be 7th Assistant in the same

school; Mr. K. B. Shahani, B.A., *sub-pro tem* 5th Assistant, Hydrabad High School to be 9th Assistant, N. J. High School, Karachi.

18th August 1897.—The following appointments are made in the Elphinstone High School:—Mr. V. S. Nerurkar to be 15th Assistant; Mr. D. R. Bhende to be 16th Assistant; Mr. W. H. Khare to be 17th Assistant.

23rd August 1897.—Mr. J. L. Gore, 3rd Assistant, Deputy Inspector, Surat Sub-Division, is transferred to Kaira, as 3rd Assistant Deputy Inspector; Mr. B. M. Mehta, 3rd Assistant Deputy Inspector, Kaira, is transferred to Surat as 3rd Assistant Deputy Inspector; Mr. S. D. Sujansingani, 5th Clerk to the Educational Inspector, Sind, is appointed Clerk, Government Central Book Depôt, Karachi; Mr. P. L. Vasvani, *sub-pro tem* Clerk, Government Central Book Depôt, Karachi, is appointed 5th Clerk in the Office of the Educational Inspector, Sind.

24th August 1897.—Laxman D. Garade is appointed Plant-Collector in the College of Science, *vice* Raop Vithuji dismissed.

25th August 1897.—The following appointments are made in the Poona High School:—Mr. D. B. Sahasrabudhe, 13th Assistant, to be 12th Assistant, *vice* Mr. N. V. Bhade, deceased; Mr. B. S. Date, F.E.A., 14th Assistant, to be 13th Assistant; Mr. N. L. Lagu, Drawing Master, Hydrabad High School, to be 14th Assistant.

25th August 1897.—Mr. Vinayak Waman Dekhane is appointed Drawing Master in the Hydrabad High School on probation.

The following appointments are sanctioned in the High School for Native Girls, Poona:—Miss E. Corkery, 2nd Assistant, Female Training College, to be 1st Assistant; Miss M. Bhore, 3rd Assistant, in the High School, to be 2nd Assistant; Mr. L. D. Nagarkar, 4th Assistant, High School, to be 3rd Assistant; Mr. S. B. Parvate, 5th Assistant, High School, to be 4th Assistant; Miss Rachelbai Benjamin to be 5th Assistant.

The following appointments are made in the Female Training College, Poona:—Miss M. Sorabji, 1st Assistant Lady Superintendent, High School, to be 1st Assistant; Miss J. Bhore, 2nd Assistant Lady Superintendent, High School, to be 2nd Assistant; Mr. S. P. Tatke, 1st Assistant, Female Training College, to be 3rd Assistant; Miss Chandrikabai Sangle, 2nd Assistant, Female Training College, to be 4th Assistant; Miss M. Rose, Matron, Female Training College, to be 5th Assistant; Mr. A. V. Kardale, 3rd Assistant, Female Training College, to be 6th Assistant; Mrs. Yashodabai Bhagat, to be Head Mistress, Practising School; Mr. P. B. Bapat, to be 1st Assistant, Practising School; Mrs. Dwarkabai Vaidya, 1st Assistant Practising School, to be 2nd Assistant.

MADRAS.

With reference to the scheme for the re-organization of the Educational services in India, embodied in the Government of India Resolution, Home Department, No. 4, Educational, 204—215, dated 23rd July 1896, His Excellency the Governor in Council notifies that the Provincial Educational Service will be constituted as follows, with effect from 1st January 1897:—

No.	Name of officer.	Designation of office.	Class.	Rank.	Nature of appointment.	Remarks.
1	....	Vacant	1st	1	...	To be filled on the absorption of the supernumerary in the European Educational Service.
2	M.R.Ry. Kunathamakar Nagoji Rau, B.A.	Inspector of Schools, Southern Circle.	1st	2	Permanent ...	Pay Rs. 700.
3	Rao Bahadur Sathu Seshayya, B.A.	Lecturer, Kumbakonam College.	2nd	...	Do. ...	Pay Rs. 600.
4	M.R.Ry. James Moothia Hensman, B.A.	Headmaster, Mangalore College.	3rd	...	Do. ...	Pay Rs. 550.
5	Mr. Edward Hugh Elliot, B.A.	Junior Professor of English, Presidency College.	4th	1	Do. ...	Pay Rs. 500.
6	M.R.Ry. Samuel Sathianathan, M.A., LL.B.	Professor of Logic and Moral Philosophy, Presidency College.	4th	2	Do. ...	Do.
7	M.R.Ry. Bhimanakunta Hanumanta Rau, B.A.	Lecturer, Kumbakonam College.	4th	3	Do. ...	Do. *on other duty.*
8	M.R.Ry. Mittadar Seshagiri Sastri, M.A.	Professor of Sanskrit and Comparative Philology, Presidency College.	4th	4	Do. ...	Do.
9	Mr. Charles Craig Flanagan, M.A.	Inspector of Schools, Northern Circle.	5th	1	Do. ...	Pay Rs. 450.
10	M.R.Ry. Navalpakkam Raghunathachariyar, B.A.	Assistant Inspector of Schools, Presidency Division.	5th	2	Do. ...	Do. *on furlough.*
11	Mr. Edwin Holder	Assistant Superintendent, School of Arts.	5th	3	Do. ...	Do. *on other duty.*
12	Mr. Thomas Ridsdale Scott, B.A.	Lecturer, Rajahmundry College.	6th	1	Do. ...	Pay Rs. 400, *on other duty.*
13	M.R.Ry. Velanguppam Thathachari Seshadriachariyar, B.A.	Personal Assistant to the Director of Public Instruction.	6th	2	Do. ...	Do.

14	M.R.Ry. Louis Christian Willams Pillai, B.A.	Assistant Inspector of Schools, Tanjore-Trichinopoly Division.	6th	3	Permanent ...	Pay Rs. 400.
15	M.R.Ry. Pharashi Srinivasa Rau, B.A.	Assistant Inspector or Schools, Godavari-Kistna Division.	6th	4	Do. ...	Do.
16	Mr. Pierre Edwin Messinier ...	First Assistant, Teachers' College, Saidapet.	7th	1	Do. ...	Pay Rs. 350.
17	M.R.Ry. Kally Subba Rau Rama Rau, B.A.	Lecturer, Kumbakonam College.	7th	2	Do. ...	Do.
18	M.R.Ry. Tinnevelly Somasundara Rau.	Assistant Inspector of Schools, Ceded Districts Division.	7th	3	Do. ...	Do.
19	M.R.Ry. Gurpur Krishna Prabhu, B.A.	First Assistant, College of Agriculture, Saidapet.	7th	4	Do. ...	Do.
20	M.R.Ry. Malur Rangachariyar, M.A.	Lecturer, Rajahmundry College.	8th	1	Do. ...	Pay Rs. 300, *on other duty.*
21	M.R.Ry. Dharmaraja Srivatsa Krishnaswami Aiyar, B.A.	Assistant Inspector of Schools, Madura-Tinnevelly Division.	8th	2	Do. ...	Do. do.
22	M.R.Ry. Sankari Ramadas Aiyar, B.A.	Lecturer, Kumbakonam College.	8th	3	Do. ...	Do.
23	M.R.Ry. Savur Mangesha Rau, B.A.	Senior Assistant Professor, Presidency College.	8th	4	Do. ...	Do.
24	Sergeant William Henry Goddard.	Instructor in Surveying and Drawing, College of Engineering.	8th	5	Do. ...	Do.
25	Mr. William Lane Bower, B.A.	Headmaster, Government Madrasa-i-azam.	9th	1	Do. ...	Pay Rs. 250.
26	Sergeant Bernard Oscar Reynolds.	Instructor in Engineering, College of Engineering.	9th	2	Sub *pro tem.*	Do.
27	Mr. Joseph Pantaleon Lewis ...	Deputy Superintendent, Reformatory School, Chingleput.	9th	3	Permanent ...	Do.
28	M.R.Ry. Subbarama Aiyar Subrahmanya Aiyar, B.A.	Second Assistant, Teachers' College.	9th	4	Do. ...	Do.
29	M.R.Ry. Annu Chidambara Pranatharthihara Aiyar, B.A.	Assistant Inspector of Schools, Coimbatore Division.	9th	5	Do. ...	Do. *on other duty.*
30	M.R.Ry. Thacket Venkaji Subba Rau, B.A.	Vice Principal, Rajahmundry Training College.	10th	1	Do. ...	Pay Rs. 200.
31	M.R.Ry. Garikipati Venkatasubbarayudu Sastri, B.A.	Assistant Inspector of Schools, Gangam-Vizagapatam Division.	10th	2	Do. ...	Do.
32	M.R.Ry. Aravapalli Subba Rau, B.A.	Assistant Inspector of Schools, West Coast Division.	10th	3	Do. ...	Do.

Madras.—*Concluded.*

No.	Name of officer.	Designation of office.	Class.	Rank.	Nature of appointment.	Remarks.
33	M.R.Ry. New Town Daivasikhamani Mudaliyar.	Assistant Inspector of Schools, Arcot Division.	10th	4	Permanent ...	Pay Rs. 200, *on other duty.*
34	M.R.Ry. Kadambi Sundararama Aiyar, B.A.	Lecturer, Rajahmundry College.	10th	5	Do. ...	Do. *on furlough.*

2. His Excellency the Governor in Council also notifies that in all future arrangements, the principle of seniority tempered by selection without respect to particular appointments, will be the guide for promotion to higher classes on the occurrence of vacancies. Persons who wish to enter the Provincial Educational Service will be required ordinarily to enter the lowest grade of it.

UNIVERSITY OF MADRAS.

ELECTION OF FELLOWS BY GRADUATES OF THE UNIVERSITY.

In accordance with paragraph 2 of the rules relating to the election of Fellows by graduates, published in the *Fort St. George Gazette* dated 13th July 1897, it is hereby notified that the following names were proposed and seconded as candidates for election as Fellows at the annual meeting of the Senate held on the 27th August 1897 :—

Name of candidate.	Proposed by	Seconded by
Mr. G. Subrahmanya Aiyar, B.A.	Mr. M. Sashagiri Sastriyar.	Rao Bahadur S. Seshaiya.
The Hon'ble C. Jambulinga Mudaliyar, B.A., M.L.	Diwan Bahadur the Hon'ble Mr Justice Subrahmanya Aiyar.	The Hon'ble C. Sankaran Nayar.
Mr. S. Narayanaswami Aiyar, B.A.	Do. Do. ...	Do Do.
Mr. M. Ramakrishna Aiyar, B.A., B.L.	Diwan Bahadur the Hon'ble V. Bhashyam Aiyangar.	Mr. John Adam.
Mr. T. R. A. Tambu Chetti, C.I.E.	Mr. N. Subrahmanyam	Sultan Muhi-ud-din Sahib.
Mr. P. Rajagopalachariyar, B.A., B.L.	Rai Bahadur the Hon. P. Anandacharlu.	Rev. C. Cooper.
Mr. P. Tyagaraya Chetti, B.A.	Rao Bahadur S. Seshaiya.	Mr. S. Rangaiya Chetti
Mr. J. P. Kotilingam, M.A....	Rev. C. Cooper ...	Mr. B. Hanumanta Rau

2. The following classes of persons only will be permitted to vote :—

(i) Masters of Arts of the University of Madras,
(ii) Do. of Laws of the do.
(iii) Doctors of Medicine of the do.
(iv) Bachelors of Arts of the do.
(v) Do. of Laws of the do.
(vi) Do. of Medicine and Masters in Surgery of the University of Madras.
(vii) Do. of Civil Engineering of the University of Madras.

provided also that no person belonging to the last four classes will be permitted to vote unless he took his degree at least twenty years before the date of the election.

3. Candidates entitled to vote, who are not residing in Madras, and who may consequently be unable to attend the voting in the Senate House in person, are requested to apply to the Registrar for voting papers. The voting papers should be forwarded, duly filled in, in envelopes sent for the purpose, so as to reach the Registrar not later than Friday the 26th November 1897. The voting at the Senate House will take place on Saturday the 27th November 1897 from 3 to 5-30 P.M. Voters residing in Madras will receive voting papers when they call at the Senate House, in person, to record their votes.

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